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A SPECIAL INTEREST GROUP OF COMMUNITY OF EVALUATORS SOUTH ASIA

LOCAL WISDOM MATTERS

REFLECTIONS ON EVALUATION THEORY AND PRACTICE FROM SOUTH ASIA

EDITED BY
SONAL ZAVERI AND RAJIB NANDI

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Reflections on Evaluation Theory and Practice from South Asia

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The idea for this volume – to celebrate local wisdom-has been brewing from the formation of GENSA in 2017. A further impetus was received by my engagement with the South-to-South Evaluation Initiative (S2SE) over the last few years, a collaboration between regional associations of the Global South which intends to elevate the knowledge and influence of the Global South.

A number of people have been key to making this volume possible. CoE's (former) Executive Director Dr. Ranjith Mahindapala has ably coordinated this project, provided valuable guidance and supported us through all our milestones. As always, he has been modest about his contributions but we would like to recognize how invaluable his support has been for the timely completion of the grant.

We cannot thank our external international experts enough, Dr Donna Podems and Dr. Fiona Cram. They have done yeoman service in reviewing many drafts of the papers, engaging with our authors and providing insightful feedback. Their promptness, commitment to the process and encouragement has been truly extraordinary. With extremely busy schedules, they not only found time to work with a small regional association trying to make a difference in the field of evaluation but did so with respect and kindness.

Our authors, in no particular order – Dr. Chandra Bhadra (Nepal), Dr. Phuntsho Choden (Bhutan), Dr Dev Nath Pathak (India), Dr. Shyam Singh (India), Dr. Keerthi M Mohotti (Sri Lanka) and Dr. Hafiza Khatun and Dr. Humayun Kabir (Bangladesh) - have done commendable work, driven by passion and willingness to respond to the many rounds of edits. We have been able to build a community of experts who can talk across our borders and sincerely hope that this interaction will lead to many more

opportunities to work and collaborate. We have been impressed with their knowledge, understanding of the context and the high level of integrity to fearlessly defend their points of view and 'say it as it is'.

We are grateful that EvalPartners put forth the theme of the Innovation Grant "Strengthening the Role of VOPEs in Democratizing Learning and Evaluation: Democracy, Human Rights and Governance as a Showcase". It spurred us to seize the opportunity to discuss how closely human rights, democracy, indigenous practices (which we call 'local wisdom') and the practice of evaluation can be intertwined. Without the generous support from the grant, none of this would have been possible.

An ambitious effort such as this is possible only because of the collaboration of so many people. We are grateful that they have so willingly been part of this great adventure.

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Foreword by Fiona Cram Ph.D.

Dr.Fiona Cram is a Māori woman from Aotearoa New Zealand. She is currently Editor-in-Chief of the Aotearoa New Zealand Evaluation Association journal 'Evaluation Matters – He Take Tō Te Aromatawai' and Director, Katoa Ltd., Aotearoa New Zealand <www.katoa.net.nz>

In June 2019 I received an invitation from Sonal Zaveri, the founder of the Community of Evaluators South Asia (CoE SA) and Gender and Equity Network South Asia (GENSA), to attend a meeting in Sri Lanka about the localization of evaluation in South Asia. From the background Sonal provided I learned that CoE SA/GENSA had won an EvalPartners Challenge Award and was bringing together authors from Nepal, Bangladesh, India, Sri Lanka and Bhutan who had been engaged to write about their local realities and the importance of local knowledge and local theorizing. The output of this writing project was to be a provocation for evaluation practices in South Asia that uncritically adopted knowledge systems from the global north.

We have a saying in our household, 'First you show up, then you see what happens'. This is about keeping planning to a minimum when we journey somewhere as we want to see what our destination and its people are like and remain open to unexpected opportunities. This doesn't mean we don't prepare in other ways, as finding out how to move respectfully in a new context is important. Guidebooks are studied for information about how to dress respectfully, what the food is like and what makes for good manners. Important current and historical events are noted, along with what topics of conversation might be acceptable and what could be off-limits. Travel advisories are read so we know if there are any risks that we may have to negotiate or places that we should avoid and what clothes we should pack for the expected weather. And top destinations and experiences are noted from

other travelers' advice and exhortations, just in case we are moved to follow in their footsteps.

This was what it was like for me in accepting Sonal's invitation and going to Sri Lanka. But even more than just Sri Lanka, I felt I was going as a guest of people from across South Asia and I wanted to be open to their places and peoples so that I could listen well and learn. This is what researchers and evaluators do when they know their own worldview is just one of many; namely, they journey alongside others so that they and their craft can be in service to the people, in their place. This doesn't prevent us from thinking together and connecting over things about ourselves that are the same and things that are different, and often pausing to celebrate both. And it doesn't stop us from exploring unexpected opportunities and pathways, as we strive to craft an evaluative 'fit' that moves beyond technical solutions and into ontological and epistemological responsiveness.

Being in Sri Lanka with Sonal, Rajib, Ranjit, Keerthi, Hafiza, Humayun, Dev, Shyam, and Phuntsho, and having Chandra beam in to be with us from Nepal, was wonderful. We talked about their papers and the successes and difficulties the authors had in championing local knowledge and ways of knowing. I shared my experiences of Kaupapa Māori (by, for and with Māori) evaluation and research in Aotearoa New Zealand, and together we thought about and then articulated the commonalities that bind them as South Asian evaluators and researchers. Two of these particularly resonate with me: that the diversity of the peoples within their countries is a strength, and that the key to good, responsive evaluation is to be found in local wisdom.

When I apply these learnings to traveling well in another people's territory as an evaluator, I reach several conclusions; namely that evaluators need to be invited, of service, flexible and able to adapt, and supportive of the local performance of evaluation. Most of all

external evaluators need to uphold people's autonomy over their own cultural wellbeing by working in ways that ensure their own redundancy as evaluators. The writings in this volume provide good guidance for how this can happen in South Asia. I encourage evaluators, evaluation commissioners and development funders to follow this traveler's advice and take a local journey—get to know the locals, begin to understand their lived realities, and walk alongside them as allies in their quest to fulfill their aspirations.

He mihi mahana ki a koutou me o koutou whānau whanui – My warmest greetings to you and your loved ones. And my many thanks for the hospitality extended to me during my stay in Sri Lanka. Kia kaha – Stay strong.

Fiona Cram, September 2019

Foreword by Professor Donna R. Podems

Dr. Podems is a Research Fellow at the University of Johannesburg, Associate Professor at Michigan State University, and Director of her company, OtherWISE: Research and Evaluation.

Modern programme evaluation theory has its roots in western culture and values, with a tremendous amount of evaluative influence originating in the West. An overwhelming number of evaluations are thus informed by these ways of thinking, as evaluators design and implement evaluations that are heavily informed by these approaches. It is no different in South Asia, where evaluative thinking and evaluations are heavily influenced by western evaluation theory and western research paradigms. South Asian practitioners have long recognized that these theories, heavily saturated in western worldviews and values, do not often provide the insight, knowledge or culturally appropriate guidance needed to conduct credible and culturally appropriate South Asian evaluations.

Thus when South Asian evaluators, and those who work in the region seek guidance from the South on how to design and conduct culturally, political and socially appropriate evaluations, there find a dearth of literature. Published South Asian evaluative theory and guidance, written by and for those who work in the region, is scarce.

Enter *Local Wisdom Matters: Reflections on Evaluation Theory and Practice from South Asia.* Dr. Sonal Zaveri conceived the idea for the book almost a decade ago when she became a founding member of the Community of Evaluators South Asia. She recognized the lack of published South Asian evaluation literature and experiences

and realized that this dearth in the literature not only limited the field globally but had negative consequences for evaluators, and evaluands, in South Asia. Her efforts to gather experiences to share with her region, and globally, cannot be underestimated for what it offers South Asian evaluators, those who are evaluated, those who manage them, and the larger global community. Her strong passion to bring democratic, empirical evaluative processes that are grounded in South Asian knowledge and bring about social change, is evident throughout the book.

While the book is useful for any donor, think tank, nonprofit or other implementing agency that engages in evaluative thinking or evaluative processes in South Asia, it is especially relevant to those who teach evaluation, or design and implement evaluations in South Asia. The book provides a wealth of practical information for those who are responsible for educating the next generation of evaluators, commonly known as Young Emerging Evaluators, or YEEs.

Preface

This volume "Local Wisdom Matters: Reflections on Evaluation Theory and Practice from South Asia" is the attempt to bring *local* knowledge and culture into the regional and mainstream evaluation discourse. The journey began in 2008 when the Community of Evaluators South Asia was founded, representing the countries of Pakistan, India, Bangladesh, Nepal, Bhutan, Sri Lanka and Afghanistan, bringing together evaluators on a common platform to strengthen the quality, use and relevance of evaluation. In 2017, GENSA, Gender and Equity Network South Asia formally became a special interest group of COE SA. GENSA is committed to promoting an equity and gender lens in evaluations and particularly give voice to the special challenges in addressing these issues in South Asia. The network enables GENSA members to promote, coordinate and collaborate on research, evaluation, policy and capacity building for gender transformation and equity embedded in and responsive to the unique culture of South Asia. It strives to promote evaluation not only *in* South Asia but *by, for and with* South Asian knowledge and expertise. This volume is the *first* compilation and synthesis of multi-sectoral, multi-disciplinary research that addresses this issue.

The Eval Partners Innovation Challenge Award won by CoE SA/ GENSA through an international competitive bidding process in 2018 was entitled *Mobilizing South Asian Local Knowledge to Democratize Evaluation Theory and Practice* provided an opportunity to specifically explore and articulate the substantial, but under-utilized local knowledge, theory and practice of evaluation in South Asia. Over the next year, we a) commissioned a series of research papers from South Asian countries, specifically from Nepal, Bangladesh, India, Sri Lanka, and Bhutan to landscape the evaluative situation with reference to local knowledge and practices b) convened an expert consultation in Colombo, Sri Lanka with selected South Asian thinkers with expertise in multi-sectoral, multi-disciplinary areas (e.g. forest management, ecology, sociology and anthropology) c) partnered with Parliamentarians Forum for

Development Evaluation South Asia to use the learnings from the research and d) developed a Policy Brief summarizing the South Asian approach to evaluation so that decision makers can advocate for the integration of locally relevant evaluation approaches in national evaluation systems.

The process has been arduous but exciting. There is a paucity of literature on evaluation in the region, probably because it is an emerging field in South Asia and also simply because few people in development/evaluation write such thought pieces that contribute to evaluation theory and practice! There are a number of challenges for academic writing in South Asia that we recognize: evaluators want to write about their own experience which may not adhere to conventional academic writing, partly because of firewalls that do not allow easy reference access to over-priced journal articles and partly, because English for many is a second language and so, the syntax is quite challenging. For this volume, we used our formal and informal networks as well as our considerable gentle but persistent lobbying skills to encourage thought leaders from the region to send their abstracts. Expressions of interest were received in early 2019, and a sub-committee vetted them, selecting 6 authors, representing various countries in the region. The sub-committee also developed the structure for the papers as a preliminary to inform the potential contributors of what is expected from them.

We have had an intimate hands-on approach throughout the project period. An editorial group consisting of the project lead (Sonal Zaveri), deputy project lead (Rajib Nandi) and two international experts (Fiona Cram and Donna Podems) steered the production of the volume. Skype calls or face to face discussions were held by the project and deputy project lead with each author to discuss the abstract, discussion points in the paper and alignment with the purpose of the grant and volume under development. The international experts provided remote and face to face technical support for each paper complementing our efforts.

As mentioned earlier, the technical content of the papers and contents of the policy brief was reviewed and overseen by two international experts, Dr. Donna Podems from South Africa and Dr. Fiona Cram from New Zealand. Donna helped us in vetting the authors and reviewing initial drafts of the papers whereas Fiona provided face to face support at the authors' meeting in Colombo in July 2019. During the initial stages, Donna provided editorial and content revision support and Fiona's technical advice enabled the papers to reach the final stages of completion. She also worked with the authors to develop the key messages for the policy brief. COVID 19 disrupted our plans to publish this volume and we are happy that we are able to do so in 2022. We were fortunate that we were able to get 'the best of the best' authors and importantly from the countries that participate in evaluation field building with GENSA and CoE in South Asia. Evaluation is a fairly new discipline in the region and each author has brought their own perspective to evaluation, enriched by their cross-disciplinary expertise in social geography, rural development, ethnographic studies and indigenous knowledge. That is why the papers in this volume are so original, unique and path-breaking. Our authors are established experts in their own fields and in their own countries and through this project, they were able to think of a regional perspective all the while reflecting deeply on what is the nature of 'local wisdom' that we bring to our evaluation work.

We are happy to share this 'local wisdom' with the rest of the world and hope that the readers in South Asia, Global South and Global North will be as excited as we are in sharing our knowledge and perspectives.

Sonal Zaveri, Ph.D. *Project Lead, Founder and Coordinator Gender and Equity Network South Asia GENSA*

Rajib Nandi, Ph.D. *Deputy Project Lead, Board Member Community of Evaluators South Asia*

September, 2022

Chapter One

Introduction

Sonal Zaveri and Rajib Nandi

This volume of papers on local knowledge in South Asia as it relates to evaluation was about claiming our space, sharing our worldview and treasuring nuggets of wisdom. This discussion, though confined to South Asia, will broaden our understanding of the global evaluation discourse that is currently dominated by Global North thinkers.

The International Organization for Cooperation in Evaluation (IOCE) saw exponential growth in evaluation societies around the world, particularly in the Global South providing a platform for Global South thought leaders.

Evaluation field building in the Global South has proliferated in the past decade primarily through voluntary organizations for professional evaluation (VOPEs) and participation in regional and global knowledge-sharing forums. This is not to say that evaluations in the Global South did not take place, but it is the VOPEs that provided a platform that enabled evaluators to collectivize, systematically learn about evaluation, reflect on the practice and future of evaluation in their region and become part of global knowledge building. It is not that evaluators and researchers in the Global South were not aware of the nuanced differences in 'doing' evaluation in their regions. While the relatively 'new' evaluators from the Global South learned, assimilated and applied various evaluation approaches, methods and tools from the head start that the Global North had, there was increasing debate whether the Global South could, in turn, through its own and unique evaluation experiences provide an alternative evaluation viewpoint.

In the South Asian region, the Community of Evaluators (CoE) began as a loose network of interested evaluators to shape the practice and use of evaluation in the region with the goal "To promote and enhance the *quality of the theory and practice* of evaluation in South Asia for development results". But as we discussed and debated, we felt that we needed to move away from

being mechanistic about evaluation to reflecting on the higher purpose of evaluation Reminded and surrounded by the diversity and inequities that exist in our region, one of the poor and the most populous in the world, it was evident that our vision needed to reflect how evaluation could make a difference in people's lives and not just whether programs and projects have been completed as planned. We changed our vision to "Evaluation for a just and equitable society" and planned to fulfill it by building evaluation capacities so that evaluations could be of high quality to generate knowledge, build knowledge-sharing networks and finally to ensure the use of evaluation.

GENSA—the Gender and Equity Network South Asia—was formally launched in 2020 and led us to question the nature and depth of gender and equity-related inequities. This has important implications for the nature of capacity building, knowledge creation and sharing and ensuring that evaluations do not lie on dusty bookshelves or fulfill the needs of an external donor. We believe that evaluation knowledge and findings should bring change in the existing power dynamics and social relationships towards a more equitable society.

The papers in this volume are motivated by the need to develop a uniquely South Asian theoretical framework and practice of evaluation. Despite the remarkable growth in knowledge assets, evaluation capacities and democratic engagement in South Asia, what, how and for whom evaluation takes place largely ignores local knowledge, philosophies and realities. The exercise undertaken in this volume is therefore significant because it is an attempt to mainstream the substantial but underutilized local knowledge, theory, and practice of evaluation in South Asia and make it more responsive to the needs of the region.

Hafiza Khatun and Humayun Kabir's paper 'Evaluation and Vulnerability in Disaster Prone Areas in Bangladesh' talks about

the difficulties of doing evaluation in Bangladesh, one of the most disaster-prone areas in the world. They discuss the evaluation processes and findings of scientific research and development projects in Bangladesh, focusing on those that occur in rural areas. Using a mixed method social inquiry approach, the authors identify the strengths and weaknesses of these evaluations in relation to the communities' social, cultural, and political norms. They argue that in such patriarchal societies, some voices are more privileged than others and the use of impact assessment tools or mixed methods does not necessarily ensure that all voices will be heard. In many ways they describe the need for evaluators to be vigilant and sensitive, especially paying attention to being gender sensitive and inclusive. Their analysis is valuable in any context that deals with diversity in complex circumstances of high vulnerability in terms of environmental disasters and post-conflict situations. The evaluation process in a qualitative approach should consider the involvement of investigators of local origin with adequate knowledge of social norms, attitudes and practices. Finally, interventions/ development programs should be based on socially acceptable norms/ practices that should not trigger additional vulnerabilities for the communities.

The paper entitled, 'Gongphel Zhibjoog: An evaluation of progress in Bhutan' by Phuntsho Choden explores the unique concept of Gross National Happiness (GNH), the idea that the goal of society should be the attainment of material progress together with psychological, cultural, and spiritual development while still maintaining harmony with the natural environment and culture. She discusses how happiness is important as a measure of progress and Bhutan's attempts to measure it through the Gross National Happiness (GNH) Index. She criticizes the construction of the index through only quantitative indicators rather than in-depth qualitative data. She concludes that recognizing a culturally responsive paradigm, such as people's happiness, is critical but the methods to assess them also need to be culturally responsive,

emphasizing the context and the subjective and diverse experiences of people and communities. In that, she throws a challenge that evaluation of values (GNH values reflecting people, community, culture, environment and governance) that are embedded in the definition of happiness also requires innovative, local and culturally relevant evaluation design and analysis frameworks.

Chandra Bhadra in her paper, 'Mobilizing South Asian Local Knowledge to Democratize Evaluation Theory and Practice: Elucidating the Missing Link "Gender"' evocatively discusses how feminists in Nepal understand the issues better than their counterparts in the Global North and why that matters in the empowerment of women. She questions the hegemony of the Western intellectual discourse and the need to respect local and culturally responsive knowledge. Based on the author's own experience, the paper critically looks into the local development initiatives and Nepalese indigenous methodologies that enable evaluators to understand the day-to-day realities of people, and to capture the outcome of the intervention and changes that people experience. Through case examples, the author illustrates what the role of a compassionate evaluator should be, which is quite different from the conventionally objective, distant one. The paper is a valuable and critical contribution to the discourse on developmental evaluation from a South Asian standpoint that acknowledges inter- and intra-county cultural diversities and pluralism on the one hand and socio-cultural harmony among South Asian communities on the other.

Shyam Singh and Chetananand Jha in their paper 'How "participatory" participatory methodologies are?: A case of participatory evaluation of a watershed development program in India' attempts an alternative take on the participatory approach in evaluation. The paper argues that though participatory approaches provide a space to local communities to contribute in the process of knowledge creation and, therefore, create a

non-hierarchical knowledge structure, the use of standardized participatory approaches may narrow the scope to capture a vast knowledge and local interpretation. The paper is based on an evaluation exercise of watershed development program in central Gujarat that was carried out using Participatory Rural Appraisal (PRA) methods. The author has reflected on his experiences and the methodological challenges that he faced and presented alternative ways of understanding local context and issues. Shyam Singh gives us an important message —that we view evaluation methodology, not in isolation but how it is applicable or not to a certain context and even when it is, to be cautious about both its limitations, potentialities and unintended consequences. It is not enough to say that mixed methods or participatory methods are used but how they are used, by whom, for whom, in what context and for what purpose.

Dev Nath Pathak's paper entitled 'Assessment-Adda: A Lokayat Approach to Another South Asia' has done a qualitative reading of evaluative arrangements in the structure and practice in the domain of folk traditions of South Asia. The paper engages with the practice of *adda* —an informal gathering to debate and discuss — among Bengal- speaking folk in India and Bangladesh. In an *adda*, people tend to reason, interpret, understand, argue, and perform evaluation through categories that come from oral traditions. By offering an integrated reading of the twin categories—the *adda* and the *lokayat*, with the latter explaining the former—this paper aids in developing a more nuanced approach to assessment practices. The nuances are envisaged in the practice of folk, sandwiched between the certainty and probability of assessment. In this regard, the author examines *lokayat* philosophy and how it enriches the approach to a folk paradigm of assessment in *adda* practice.

Keerthi M Mohotti's paper 'Evaluating Sri Lankan Indigenous Knowledge in Agriculture, Water Management and Food Sectors' assesses the capacity of indigenous knowledge, technologies and

practices in assuring food security and efficient natural resource management in Sri Lanka. According to Keerthi's study, the efficient application of indigenous knowledge systems enables indigenous communities to develop harmony between the environment and culture of people through the traditional *wewa – dagaba – gama – pansala* (water reservoir – stupa – village – temple) system. According to the paper, harnessing indigenous knowledge effectively enhances agricultural productivity. The paper highlights sustainable development opportunities in the country despite several constraints and limitations. Keerthi's research finds that local indigenous communities are able to demonstrate their potential to apply local knowledge to global challenges such as hunger, nutrition, poverty, climate change and social disparity. As he argues, local knowledge is important to evaluators working with indigenous communities, which strengthens their practice of evaluation and promotes national and international learning.

All the papers provide a deeper understanding of the context so that the reader can appreciate how evaluation has to be adapted to fit the unique circumstances of South Asia. Through this volume we wish to reclaim our understanding of evaluation, reflect on our learnings and use this wisdom accumulated over decades of experience and understanding to reposition evaluation in our region. We join the group of emerging and eminent Global South thinkers in this journey.

Chapter Two

How 'participatory' participatory methodologies are? A case of participatory evaluation of a watershed development program in India

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Introduction

Participatory research approaches have been widely used to study community development related initiatives (Grace *et al. 2008*), including sustainable agriculture (Clarke, 2002), pest management (Van de Filert *et al.* 2007), animal health (Jost *et al.* 2007), human health (Gibson, 2004), wa tershed development programs (Rhoades, 1999), and local governance (Gaventa, 2004), policy processes (Smith, 2003). Participatory approaches have also been used by civil society organizations in program planning and implementation at the local level (UNDP, 2011). However, participatory approaches have been criticized for the inability to analyze individual or private information (Stadler, 1995), their potential for elite capture (Jacobs *et al*. 2010), and for their lack of objectivity and rigor (Cornwall and Pratt, 2010). Participatory research approaches have also been criticized for not being able to address the issues related to validity and reliability (Baskervillex & Wood-Harper, 1996; Denscombe, 1998; Guijt, 2000).

Many scholars have come up with different typologies and models of participation (Arnstein, 1969; Pretty, 1995; White, 1996), and a few have defined what participation is for and what participation would mean for implementing agencies as well as local people (White, 1996; Guijt, 2014). Though these categorizations appear with a standard caution regarding their inability to realize similar outcomes in different contexts (Cornwall, 2008), implementation of such pre-articulated participatory designs has larger implications for the outcomes of participatory research. These implications are related to the genuineness of participation and real outcomes of the intervention under evaluation.

Drawing upon an exercise in participatory evaluation, this paper examines whether standardized participatory methods allow participants to innovate and localize these methods. In other words, can participants use indigenous ways of producing data

and information, and make sense of their own social realities using these methods? Hence, this paper examines whether pre-articulated and standard participatory designs are able to democratize the evaluation process or not. This paper contributes to the strand of literature that favors the relevance of participatory approaches to research but has raised questions on its conduct which only focuses on quick data collection (Chamber, 1997) without ensuring the key elements of democratic participation, equality and empowerment (Floc'hlay & Plottu, 1998; Cooke & Kothari, 2001).

This paper is based on a participatory evaluation that was conducted in 2015 to evaluate the impact of a watershed development program on the quality of life of local people in a village in the stateof Gujarat, India. The watershed development program was being implemented by a non-government organization. The evaluation was carried out using the standard form Participatory Rural Appraisal (PRA) methods available in the literature. The PRA exercises resulted in the huge participation of the villagers and created a collaborative environment, which not only produced shared knowledge but also put forward several methodological challenges. Using findings and experiences from this participatory evaluation, this paper also presents alternative ways of understanding local context and issues.

The paper is divided into six sections. Following the introduction section, the second section presents a review of the literature on the use of participatory approaches in development evaluation. The third section presents a brief overview of a development intervention that was evaluated using participatory research approaches followed by methodological details in the fourth section. The fifth section discusses individual PRA exercises conducted with local people. This section also highlights the issues that emerged during these exercises. The last section presents the discussion and concludes the paper.

Use of Participatory Methodologies in Development Evaluation

Participatory evaluation is characterized not so much by the tools and techniques used for data collection but by virtue of the methodology enabling local people to participate and contribute (Pain & Francis, 2003; Springett & Wallerstein, 2008). In participatory methodologies, participants and evaluators co-create knowledge, instead of participants being merely informants and providing the data. The role of community participants becomes more important in participatory methodologies. Whereas the objectives of conventional research methodologies are largely epistemological (ways to generate knowledge), participatory methodologies, in addition to being epistemological, are also based on ontological principles (which/what knowledge). Participatory methodologies are adaptive of people who may be at the bottom of economic well-being or power hierarchy (Gilchrist *et al.* 2015). Robert Chamber (1994a) observes that poor people are "*creative and capable*" in conducting their own enquiry; hence Participatory approaches are also regarded as a means to empower program beneficiaries (Fetterman & Wandersman, 2007; Jacobs *et al*. 2010).

Use of participatory approaches in the evaluation of development interventions is considered pragmatic and ethical (Guijt, 2014). It is pragmatic because it yields better evaluation results and ethical because people who are meant to have benefited from a program will be asked how the program has worked for them (Jupp & Ibn Ali, 2010; Jacobs, 2010; Guijt, 2014). Participatory evaluation also aims to build the skills of participants, along with other stakeholders (Zukoski & Luluquisen, 2002). Therefore, evaluation does not rely on 'evaluation experts' only; beneficiaries can also figure out themselves what program outcomes look like. The growth of participatory approaches in evaluation has mainly been due to three reasons (Hilhorst & Guijt, 2006): 1) the inability

of other methodologies to capture local knowledges, needs and aspirations, 2) the need for continuous adaptation and innovation in order for evaluation to remain relevant in changing conditions, and 3) ensuring accountability at every level of intervention (top to-bottom).

Participatory evaluation methodologies are more important in cases where there is no clear distinction between beneficiaries and non-beneficiaries. In such cases, it becomes nearly impossible to find a control or comparison group to estimate the outcomes/impacts of a program. We can take the case of the watershed development project that we are addressing in this paper as an example. If, as a result of this intervention, green areas in the ravines grow and if the water table increases, everyone in the village gets benefited in one or other way. Therefore, finding a comparison or control group to estimate the impact of the program is nearly impossible. Hence a widespread participatory mapping is needed to determine the effectiveness of interventions of this kind. This requires the inclusion of a wide range of stakeholders (Estrella *et al.* 2000) as well as the use of a wide range of methods and tools to determine the evaluation results (Armonia & Campilan, 1997).

Watershed Management Program in a Gujarat Village

The Foundation for Ecological Security (FES), a non-government organization based in the Anand district of Gujarat, works mainly on environmental and livelihoods issues by engaging with rural communities. FES took up a watershed development project in Sarnal Panchayat (Kheda district) as well as two of its hamlets (Uplet & Sukhini Muwadi) in 2008. The project was funded by the National Bank for Agriculture and Rural Development (NABARD). The villages are situated on the banks of ravine areas of the river Mahi. The villages have been facing vast amounts of

land degradation due to gigantic ravines. Sarnal has a population of 2073 with 414 households. Uplet has a population of 722 with 160 households.[1] Before the project was initiated, a total of 175 hectares of irrigated land was available in the villages, out of which 125 hectares of land was dependent on seasonal irrigation. The villagers have considerable livestock, mostly buffalo and calves, which are another important means of livelihood for the local people.

The major objective of this watershed project was to check the spread of ravines and soil erosion by improving vegetation cover (grassland development and afforestation) on the ravine lands through appropriate soil and water conservation measures. The project also aimed to strengthen institutional mechanisms to manage natural resources and improve the socio-economic status of the local communities by strengthening their livelihood options.

A Village Watershed Committee (VWC) was constituted for the planning and implementation of the watershed program. The Committee was registered under the Societies Registration Act of the Government and operated its own bank account in order to manage the finances and funding support. The Committee identified a group of para workers from the concerned villages to carry out planning to implement the project. VWC used to meet every month to deliberate the progress of the project. The progress of the project has also been deliberated from time to time in Gram Sabha (Village Council) meetings.

The program ended in 2013. The implementing organization (FES) carried out its own internal assessment using the project documents and reached the conclusion that the program was able to achieve its objectives. However, a couple of years after the conclusion of the program, the program team decided to assess whether the program had resulted in the sustainable and transformative development of people. Hence, a participatory evaluation was

1. Indian Village Directory, https://villageinfo.in

planned to understand the impact of the program on the overall quality of life of the families of the villages.

Methodology

PRA was used to understand the impact of the watershed program. Four PRA exercises were conducted in one day (see Table 1). The first PRA exercise was to draw pre-project and post-project resource maps. The second PRA exercise was trend analysis, which was carried out to understand the changes that took place with respect to selected indicators of the project during 2008 and 2015. Resource maps and trend analysis were done simultaneously. The third exercise was about drawing a Quality of Life (QoL) map to reflect the overall changes that took place in the lives of local people due to the watershed management program. In order to triangulate the information gathered through all three exercises, a transact walk was conducted at the end. After the completion of each exercise, an in-depth group discussion was organized with the participants to gain more information. At the conclusion of all exercises, a joint discussion took place among the teams to triangulate the information and results.

About 50 participants, including 20 women and young girls, participated in the PRA exercises, though the number of participants varied during different exercises. The QoL mapping exercise received more representation of women and girls than the other PRA exercises, though we had to change the venue for QoL exercise to a place where women felt comfortable participating in the exercise. The facilitators wanted to have greater participation of women in this exercise as they are an important stakeholder of quality of life at the household and community level. The exercise was therefore purposefully scheduled in the afternoon so that women could participate as they get relatively free from routine household work by this time. This strategy may be construed as going against the fair participation of all sections of society in

Table 1: Details of PRA Exercises

SN	Exercise	Duration of the exercise	Participation*	Remarks
1	Pre & Post Resource Map	3 hours	20-25	Few participants joined in between and few left as well.
2	Trend Analysis	2.5 hours	12-15	Resource map and trend analysis were carried out simultaneously.
3	Quality of Life Graph	2 hours	30-35	Most of the participants were women and young girls.
4	Transact Walk	2 hours	15	People who were working on the fields/ sites also joined the walk in between.

* Few participants left and few joined during all the exercises.

the participatory exercises, but then one also has to ensure that contextual relevance is not ignored. Given the socio-economic background of the village society, women's conditions exhibit a significant part of quality of life.

VWC members were part of all the exercises as participants. The day started with a briefing about the program carried out by FES functionaries and VWC members. Initial questions and queries were posed by the participants to understand the program as well as the process of evaluation. Though VWC had invited participants from all sections of society (one male and one female from each household), the participation during all PRA exercises remained more or less random. During every PRA activity, though, some participants remained present for the entire exercise, few new participants joined and few left before the exercise was completed. Initially, facilitators were worried about floating participants, but later it was realized that with few regular participants, floating participation was helpful. It provided facilitators with

opportunities to verify already gathered information through the exercise and gain some new information from those participants who were joining the exercise in the middle. This trend seemed natural as villagers have their own schedule throughout the day and it is nearly impossible to retain them for the entire day. After all community participation is not a science (Oakley, 1991), and people make decisions about their participation at their convenience. Literature on participatory evaluation methodologies does not really offer standard ways to ensure participation in participatory exercises; it is largely left to the creativity of the facilitators (Hall, 1992).

PRA Exercises

Pre & Post Resource Map

During the briefing session conducted by the VWC members, the evaluation team[2] interacted with community members and tried to understand the social configuration of the village. Geographic, demographic, socio-cultural, and livelihood details were collected from the VWC members and local people. The team had also gone through program-related documents; therefore, a fair amount of programmatic information was already known by the evaluation team. In order to understand the village resources before the program started, the team focused on 5 indicators for the resource mapping: 1) Coverage of vegetation; 2) Water resources and availability of water for irrigation; 3) Area covered by cropping and vegetable production; 4) Soil quality; and 5) Amenities and infrastructure related to use and management of water resources.

Since there was no baseline information available on many relevant indicators related to program outcomes, the participants worked out a resource map for the pre-program period using

2. Evaluation team consist of academicians, practitioners and officials of the NGO that implemented the watershed program in the village.

a recall method; that is, what was the situation regarding the above-mentioned indicators before the project started in 2008. As this evaluation was carried out in 2015, it was difficult for the participants to recall information with precise details. Recall, more often, ends up bringing imperfect information as it depends on an individual's ability to remember accurately (Fricker, et al., 2000, p. 107). Participants may also use different recall periods, and therefore, the data collected from different participants may lose parity as well as comparability (Schneider, 1981, p. 823).

The local participants deviated from the recall methodology suggested by the evaluation team and adopted innovative ways of exploring information. For example, to determine area coverage of vegetation in the ravine areas during 2008, participants tried locating places where they used to take their cattle for grazing. They also shared stories as to how during summer they didn't have tree cover to avoid the sunlight while walking through the ravines and areas nearby the river. Participants spotted these areas from all three directions from one side of the river (i.e., along the river bank and perpendicular to the river bank), and marked these places in the resource map.

In terms of identifying the availability of irrigation infrastructure in the village during the pre-project time, participants shared stories of the struggle they went through to get water from the only tube well in the village. They also recalled complaints made to local government offices to help them develop alternative systems/ infrastructure of irrigation. They also stated that they had reported the depth of water table in their applications to the government, which became a baseline value for the water table in the village for pre-2008 period. They shared incidents of failed attempts to dig a well. These stories gave an idea about the water table before the project started. The participants could also easily recall the profile of crops they used to grow before 2008.

After chalking down the pre-project resource map, participants used the same map structure for drawing a post-project map. When the plantation started under the project, the VWC, through Gram Sabha, passed a resolution to stop cattle grazing in order to allow newly developed green cover in the ravines. Participants marked these areas in the map as green areas developed under this project. Participants recollected the incidents when they had to stop people from taking their cattle to these areas. Initially, such incidents created some tensions among the local residents, but later on people cooperated. Recalling of stories by the participants not only helped in chalking out the maps but also provided critical information relevant to evaluation.

Trend Analysis

Trend analysis was carried out to understand the change over time in four outcome indicators: change in vegetation, change in soil erosion, change in agriculture practices, and change in social conditions. These outcome indicators were divided into 14 sub-indicators. The project documents were helpful in identifying these indicators. However, the sub-indicators were decided through a discussion with the community and VWC members. The trend analysis exercise was primarily done on a big chart paper. As a process of deciding the change with respect to the indicators, participants were told to pick among the five stones. One stone represented the least change and five stones collectively indicated maximum change. No stone would indicate that there was no change observed on a particular indicator during the project period. The participants were asked to discuss among themselves reach a decision and choose number of stones accordingly. One of the participants was making an equal number of asterisk or star signs (in the place of stones) on the chart paper.

However, the use of stones as an indicator to mark the change was not effective. Participants were not able to understand how a certain

number of stones would represent a certain amount of change in their lives. After an initial discussion, and once the participants were made aware of the relative meaning of the difference in number of stones, the participants tried defining stones as per their understanding. For example, before 2008, local people had had to struggle to make fodder available round the year for their cattle. On an average, most of the households had fodder that was sufficient to feed their cattle for 3-4 months. Therefore, two stones were used to indicate the amount of fodder that was sufficient for 3-4 months. They chose three stones for fodder availability for 6-7 months, four stones for 10-11 months and five stones indicated availability of excess fodder. The presence of women proved very fruitful in deciding these benchmarks. For example, women contributed in deciding the availability of fodder for the households as they serve the fodder to cattle every day.

Similar benchmarks were developed for all other indicators included in the trend analysis. The evaluation team was trying to ask for changes in various indicators using the base year, i.e., 2008. However, it was not possible for the participants to determine progress on different indicators for every year post-2008 by keeping 2008 as a base year. Therefore, it was decided that instead of comparing changes that took place in an individual year, it would be better if the team came up with 'year blocks'. Therefore, the entire exercise was redone again using year blocks: 2007-09, 2010-12, and 2013-15. This time participants were more responsive in providing the information.

The facilitator, a member of the evaluation team, held the stones and local participants were asked to take the stones from his hand. Sometime after the start of the exercise, some participants observed that a member of the evaluation team should not hold the stones. Instead stones were given to participants and they decided the number of stones to place against each indicator. It was realized that the participants who were asked to choose the stones were

Table 2: Trend Analysis

Indicators	When stones were held by the facilitator			When stones were held by the participants		
	2007-09	2010-12	2013-15	2007-09	2010-12	2013-15
1. Change in Vegetation						
Change in availability of fodder	***	*****	*****	**	****	*****
Change in number of tree species	***	*****	*****	**	****	*****
Change in heights of tries	***	*****	*****	**	****	*****
2. Change in Soil Erosion						
Change in wasteland to productive land	**	****	*****	*	***	****
Ravine reclamation	***	****	*****	**	**	***
Change in soil moisture	**	****	*****	*	***	****

Note: * sign represents the number of stones chosen by the participants for the given time interval

hesitating in taking the stones from the facilitator's hands because of the perceived gap in the social and economic status between the participants and the facilitator who belonged to a reputed academic institution. By the time this issue was realized the exercise was almost half way done (2 main indicators and 6 sub-indicators). Participants were advised to repeat the exercise, although those participants who were choosing the stones were not told about the reason for repitition of the exercise. When the exercise started again, there was a difference between the changes (number of stones) indicated by the same set of participants on similar indicators (please see Table 2). When one evaluation team member enquired about this incident informally with a few participants post-exercise, he found that the participants were feeling compelled and they should oblige evaluation by showing good progress of the project

as they had to take stones from the hands of the evaluation team member. This was an example of how power and hierarchy affect the outcomes of participatory evaluation.

The participation of local people in the trend analysis exercise was very effective. They corrected the evaluation team several times, even without realizing the importance of their contribution (or corrections). There were instances when impact-related questions were rephrased by the evaluation team as the questions were not able to elicit relevant information, though the participants were providing information in anticipation. This prompted evaluation team to rephrase their questions several times during the entire exercise. The participatory evaluation design that was worked out with participants, with the evaluation team taking lead in it, didn't work out until participants were given full freedom to redesign the process without much interference from the evaluation team.

Quality of Life

Another objective of the participatory evaluation exercise was to draw a quality of life map to reflect what changes have occurred in the lives of the people due to watershed development intervention. The evaluation team had come up with a list of indicators to exhibit level of quality of life of local residents. These indicators were drawn from existing literature and frameworks such as human development. The QoL indicators included health, education, employment, agriculture production, and income. Participants were asked to discuss among themselves and come to a conclusion as to what was the level of quality of life of the villagers in different years, starting from 2008. After an initial discussion, the activity got stagnant. Participants were not able to relate their quality of life to the indicators given to them. The evaluation team stopped the activity and requested participants to discuss among themselves and come up with a list of indicators which should represent their quality of life. After about 30 minute discussions, participants came

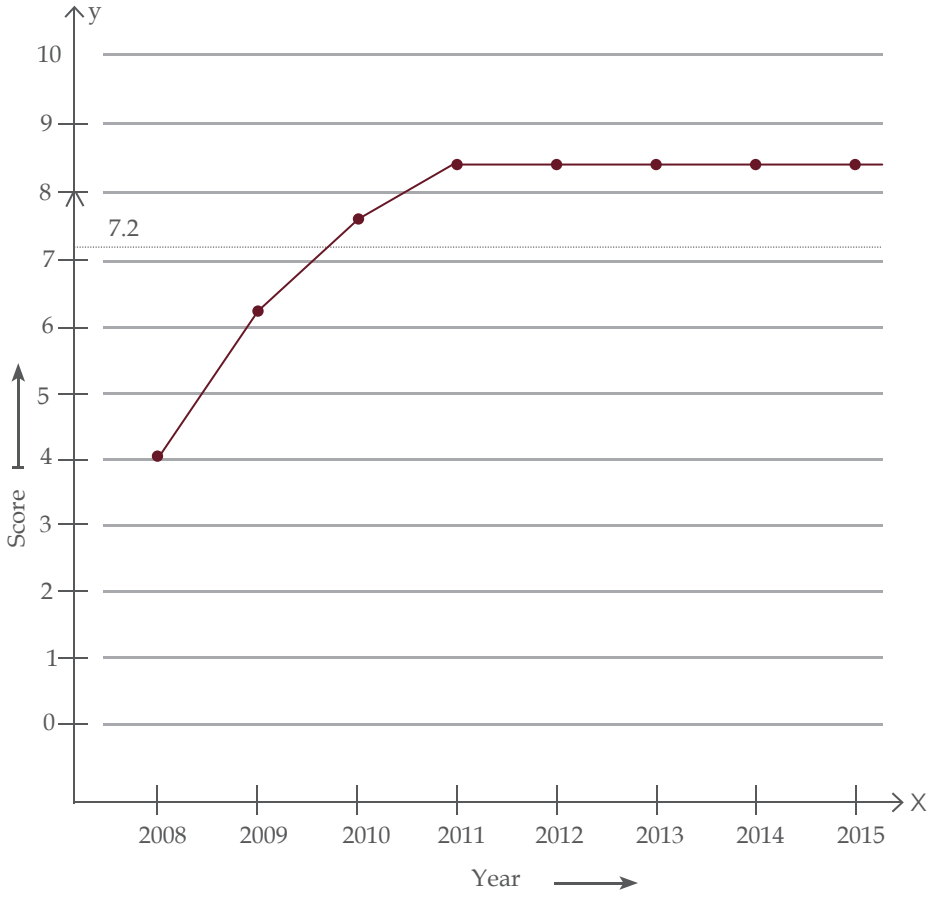
up with a list of the following QoL indicators:

- Food security (availability of minimum food for everyone in the family)
- Access to information about public services
- Social harmony among the villagers
- Owning private land and private bore well
- Alternative (other than agriculture) means of employment
- Availability of drinking water and water for irrigation
- Construction of pucca (concrete) houses

While few indicators among the above were directly or indirectly related to the invention (ex- food security, availability of water, alternative livelihoods, irrigation and related infrastructure, etc.), some indicators were very new to the evaluation team which did not match with what the team had conceptualized the quality of life for the local people. These indicators were access to information and social harmony. The participants deducted that if they observe better availability of water for household use and for irrigation, this would increase economic prosperity and lesser confrontations, hence social harmony would increase among the residents. They also realized that in the process of working for watershed development intervention, they came to know about various government schemes and benefits which they were not aware of earlier. Hence they could understand the value of information and adopted this as an indicator of their quality of life.

The exercise started on a chart paper with X axis representing years and Y axis representing a scale ranging from 1 to 10 (please see Fig. 1). The evaluation team explained the scale to participants with 1 representing worst QoL and 10 representing best QoL. However the exercise again got stagnant after some time. Participants were not able to understand how these numbers would reflect their QoL. A number in any scale does not represent its absolute value

Fig. 1: Quality of Life Map



and indicates relative position. For example, on a scale of 1 to 5, value 2 does not represent a change (or a situation) in unit value 2, but it indicates a relative position which is better than 1's own position and worse than 3's position. Scaling is a tool for those who have gone through modern education system and understand the relative value of scaling. The participants of QoL activity, many of them being women, were hardly literate and not able to understand the scale.

To overcome this problem, participants first chalked out the list of

very bad, bad and good things (drought, flood, good harvesting, good monsoon rain, new opportunities of employment, starting up new businesses, etc.) that happened to them (or community) during 2008-2015. They assessed these events for each year. In order to gather exact information for every year, they recollected the major events that took place in different years and linked those years with the good and bad things as mentioned above. For example: what happened (i.e. in 2014) when Gujarat Chief Minister became Prime Minister of India, or the year when the nearby town got Taluka (a sub-district level administrative headquarter meant for mainly revenue and land related matters) status. Redefining the scale in the way participants understood worked well and exercise could be completed.

Discussion and Conclusion

The description presented in the previous section indicates that a number of methodological challenges emerged during the participatory evaluation exercises undertaken to evaluate the impact of watershed development project in a Gujarat village. These challenges surfaced mainly because of the top-down implementation of PRA tools. The evaluation team tried implementing standardized formats of PRA exercises which participants could not comprehend. The evaluation team asked participants to conduct activities as per pre-decided concepts (such as QoL) and methodological scheme (such as scaling). As the participants were not able to understand the standardized design of the PRA activities they had to be adapted for implementation. The focus of the evaluation team in this case was mostly on maintaining a reasonable number of participants to perform these activities. This evaluation exercise proved to be an important lesson; namely, that participatory does not only mean more number of participants, but also the inclusiveness of the methods being applied so that the participants can understand and have space to innovate. Guijt (2000) observes that researchers often use a limited number of

commonly known participatory methods based on 'fixed ideas', but such approaches are least sensitive to the context and leave little scope for participants to innovate. In such cases participants are reduced to mere 'respondents' or 'informants' (Chouinard & Milley, 2018).

We have ample literature about what creates distortions in participatory exercises (Cooke and Kothari, 2001; Gaynor, 2013). However we don't have a settled debate yet as to what makes a participatory exercise truly participatory. This study throws some important light on this aspect. This study finds that social locations where such exercises are organized catalyze participation by providing inclusive locations as well as using methods infused with the relevant context, and hence produce better results.

During the Transect Walk, after concluding all the three exercises, the interaction of the PRA team with farmers working in their fields provided an appropriate environment where more precise information related to soil quality, crop cycle and agriculture production could be gathered. Similarly, talking to a farmer who is irrigating his field using water from a pond fetched relevant information regarding the availability of use of water for the irrigation pre- and post-watershed development initiative. The QoL exercise was organized at the house of an elderly woman where other women and girls of the village feel no hesitation to approach. We organized resource map and trend analysis exercises at a place where people more often gather every day after lunch or during leisure times and engage in discussions ranging from individual to community issues. Such places are usually referred to as *Chaupal*[3] in rural India, where local people gather every day and talk about socio-political issues concerning their everyday life. Such locations are usually open to people from all castes and creed, and provide space for everyone to participate in the deliberations.

3. An informal space where local people gather everyday and talk about local politics, history, folklore, local conflicts, community issues, cultural events, etc.

During the evaluation exercises, more often facilitators expect quick responses from participants - anticipating that merely asking questions would fetch the required information. Therefore, they come prepared with a list of questions or discussion points for each activity. An underlined assumption behind such practices is that the participants either have ready-made information available with them, and if they don't they will be able to recall it correctly. However the experiences of this study indicate otherwise. Participants used their daily life stories as a critical method to fetch information. These stories not only provided the contextualized lived experiences but also relevant numeric data. These stories were not only the stories of change[4] (stories exhibiting the program outcomes), but participants also used stories of struggle as an alternative method to recall past data. These stories worked well to make silent and hesitant participants open up during the discussion and to enhance their participation level. Consequently, participation becomes devoid of any power hierarchies or local politics if they are at play during such exercises. The effectiveness of these stories can be understood from the fact that the factual information fetched through these stories was matching with the secondary data available with project documents.

A careful review of studies[5] using participatory approaches shows that though the studies vow to be vigilant towards the local context, they are implemented with an underlying assumption that merely adopting participatory mapping and ranking approaches would fulfill the requirement of collecting context specific data. Hence, they don't provide any specific framework to collect contextual information. In our case too, the evaluation team proceeded with similar assumptions. However, disruptions that took place in all three PRA exercises exhibited the need to allow people to explain

4. We have a well-developed stream of evaluation that uses stories for change to identify the program outputs and outcomes. It is known as 'Most Significant Change' method (Davies and Dart, 2005).
5. We avoid providing here references as gamut of studies qualify this observation and we don't find appropriate to refer just few studies here.

their contexts by digging deeper into their own life experiences. Adopting location of social importance and allowing people to use their own ways (such as stories, using big events to recall their past experiences, etc.) to talk about how they experienced the effects of the watershed development intervention was helpful for the participants to underline their contexts and for the evaluation team to link the contexts with the factual information to determine the outcomes of the intervention.

Lastly, we discuss about validity and reliability in participatory approaches. Validity is about how accurately study findings represent the reality, and reliability reflects the consistency of the findings (Chambers, 1994b). Concluding that participatory approaches do not pass the validity and reliability test (Silverman, 2001) is incorrect. Since participatory methods are implemented collectively, acceptance of the outcomes of the participatory exercises among local people is higher than any form of empirical enquiry. The internal validity (the relation between cause and effect) tends to be higher as people themselves identify issues, verify the information and suggest solutions. However, the external validity remains lower as participatory exercises are deeply ingrained into the local context, and therefore, they may not be found suitable to be generalized over other communities. In participatory research, data is not simply capturing what people answer to questions posed to them, it's about participants' feeling, realizing and weighing what happened to them and what should happen to them. Therefore, questions related to external validity are of no use in participatory research.

There is a tradeoff between lower external validity and trustworthiness of the findings. The findings of participatory research are reflective of the local conditions, though they may not be generalized over a larger segment of the population. This is not to suggest that participatory approaches ignore validity tests. The validity in mainstream research designs, such as survey

method, intends to minimize elements of biasness or judgement through rigorous data collection and analysis exercises. However, the objective of adopting such a rigorous approach is also to enhance the trustworthiness of the findings (Pretty, 1993 cited in Chambers, 1994b). The trustworthiness in participatory researches is ensured through the methodological principles of participatory approaches, active interaction, participation, observations and critical judgements (Chambers, 1994b).

While summing up, assuming the participatory approaches, just by the name and skeleton drawing, are always participatory would be a mistake. The final outcome behind any participatory methodology is not to come up with maps and ratings, but to create stakes for local people in the activities and learn from them. If we wish to learn from local people, we must allow them to decide the ways they would use to make us learn. Hence we cannot prescribe them to follow standardized designs of participatory methodology. This can be achieved by allowing local people to define positive outcomes for themselves and to use their ways of collecting information and generating knowledge. This brings us to the conclusion that the essence of participatory evaluation approaches lies in its flexibility to accommodate indigenous ways of information collection and gather collective knowledges. Real participation goes beyond the number of participants or diversity among them, to providing space and freedom to participants to innovate, adapt and lead.

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Chapter Three

Mobilizing South Asian Local Knowledge to Democratize Evaluation Theory and Practice: Elucidating the Missing Link “Gender”

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Nepal– The Outer Layer

Nepal's planned development has a backdrop of a unique political economy that may be quite different than most other South Asian countries. India assisted "democracy" took place in 1951, with the overthrow of the 104 year-old autocratic hereditary Rana regime. At the same time, Nepal opened its doors to the global politico-economic giants such as the United States Agency for International Development, (USAID), the United Kingdom Agency for International Development (UKAID), the newly formed United Nation agencies, and the World Bank. Other bilateral and multilateral agencies followed with European Union (EU) being the most recent addition in the early 1990s. In spite of being an "ever non-colonized" country, development in Nepal has beenheavily influenced by these organizations, and their western global policies and international agreements. For example, the Point Four Program agreement with the United States signed on 23rd January 1951, brought a dominance of western values, theories and paradigms into Nepal's economic and political growth. The First Five Year Plan (1956-1961) commenced with a complete dependence of Nepal on bilateral foreign aid amounting to 389.2 million Nepalese Rupees. From the structural adjustment of the 1980s to the economic liberalization of the 1990s, Nepal tried its level best to keep up with global neo-liberalism.

By the turn of the century, fifty years of development experiences—specifically in the context of the failure to eradicate poverty in Nepal—have been critically examined by Nepali development professionals. There are instances of Nepalese professionals critiquing foreign assistance and development policies as early as the second half of the 1970s. Stiller and Yadav (1979) pointed out that Nepal's development policy depended on decisions made in Delhi and Washington. They stated that without development initiatives being based on the reality of Nepal's political, social and administrative structure, foreign aid became just "good business"

for the foreigners involved in aid as well as for the Nepalis who profited from it. By the same token, the basic theme of the seminal papers in Integrated Development Systems(IDS) (1984) pointed towards the centralization of westernized ideology of growth theory, leading to heavy Nepali dependence on foreign aid. This, in turn, increased the incidence of poverty among the people of Nepal. Referring to Blaikie, et al, (1980) this sentiment reflects Nepalese feelings on plying Nepal's development efforts on false assumptions and false accusations of Western theories;

... Nepali culture, have typically been burdened by a theoretical framework, used for the study of social stratification, developed by a western mentality that attempts to represent Hindu caste society either based on Indian model or as a periphery of the western centres of industrial capitalism and imperialism (Bista, 1991, p.8).

Between 1996 and 2006 Nepal faced internal turmoil in a decade-long armed conflict that shifted Nepal from a Monarchy to a Federal Democratic Republic. That shift created socio-political murkiness in terms of which international partners played what role in Nepalese society. For example, while some development partners entered as peacemakers, others entered as private sector investors. Yet the roles played by each development agency were never clear.

While the West has funded multiple development interventions, Nepal still remains one of the poorest countries in the world. During the fiscal year 2018/2019, 24 percent of the total government budget came from foreign aid (Ministry of Finance, Budget Speech 2018/2019)[1], with a large sum of off-budget[2] financial aid, mainly

1. https://mof.gov.np/uploads/document/file/speech_english_20180715091522.pdf
2. "…many of the humanitarian assistance, small assistance in social sector and technical assistance targeted at capacity development, knowledge and technology transfers are being mobilized either directly by the development partners or through Non-Governmental Organizations. This type ofassistance is not reflected in the annual budget."Ministry of Finance, Government of Nepal. Statement of Technical Assistance

from bilateral agencies and international nongovernmental agencies, going directly to non-governmental organizations.

In recent years, Nepalese intellectuals and academics are engaging in an intense discourse that criticizes how bi-lateral and multi-lateral agencies bring cultural inclusion masquerading as economic development and peace building. This discourse is fueled by on-the-ground movements and voices being heard through civil society. For example, various Nepalese civil society groups initiated movements such as the*RastriyaJagaranAviyan* (National Awakening Movement) and Nepal KaLagi Nepali Aviyan (Movement of Nepalese for Nepal). These and other movements aim to conserve Nepali culture and Nepali nationalism by combating Western-driven development. It is within this context that Nepalese feminism has been resisting the (unnecessary and unwelcome burden of) Western feminist cultural intrusion. This intrusion comes in the guise of gender research and technical assistance to Nepal's development and actively undermines Nepalese women's vibrant civil and academic feminist movements. The next section explores the Nepalese feminist and patriarchal context.

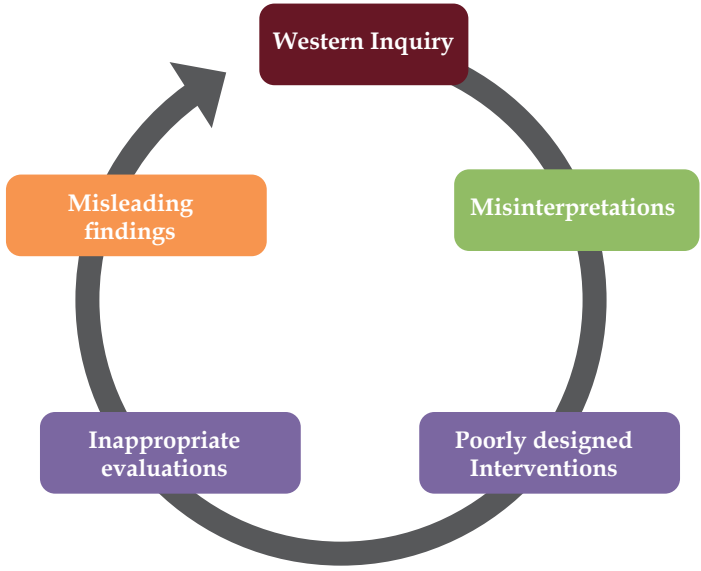
Feminist Critique – The Middle Layer

The section focuses on a subsector of development programs and evaluation practices in Nepal; namely, those that focus specifically on women.

From the standpoint of a Nepalese feminist academic who can draw on three decades of research and evaluation experience in Nepal, I critique western paradigms that have been imported into Nepal. These paradigms negatively influence research and evaluation

and Other Assistance - FY 2019/20.
Source: www.mof.gov.np/uploads/document/file/TA_english_full_20190531082153.pdf

Fig. 1 - A cycle of non-virtuous western paradigm implementation and its consequences in Nepal



focused on Nepalese women, leading to misinterpretations that feed into poorly designed interventions and inappropriate evaluations that provide misleading findings (see Fig. 1).The subsection 2.1 specifically demonstrates how, western feminists through western donor support, assert their dominance within Nepalese gender equality discourse, ignoring local Nepali feminists, and the Nepali women's movement, both of which bring culturally appropriate and locally informed feminist knowledge. The subsection 2.2 looks further into the heart of patriarchy in Nepal.

Western research and evaluation paradigms

The loud voices of western feminists and western institutions shadow the local knowledges brought by Nepalese feminists in academia, and those within Nepalese women civil society organizations. This section describes examples of what happens

when western feminists draw upon their western biases and values to shape their research and evaluation in Nepal. In the first example, Garzilli misinterprets Nepalese religions as the architect of gender discrimination; while ignoring the influence of the Nepalese patriarchal society. She states:

I restricted my talk to South Asian women because they have been living for millennia in a sort of ghetto made by the legal interpretation of religious believes, Hindu and even Buddhist, which confined them to a role and a status subdued to that of men to which they "belong": their father when they are unmarried and then husband…

…I have focused this overview on Nepal, which is a microcosm where we can find all South Asian cultures (Garzilli, 2012, p.30).

My first difference of opinion with Garzilii is her misunderstanding of Nepal as a microcosm of South Asian cultures. Culturally Nepal is very unique and cannot be compared to any other country in South Asia. The richness of intra-country diversity of Nepal is also very unique and cherished by the Nepalese people. Secondly, Garzilli's interpretation ignores the complexities of patriarchy in Nepal; patriarchy that exists in other South Asian countries and to a large extent, globally. Consider that many South Asian countries do not follow Hindu and Buddhist religions yet gender inequality is rampant. Further, while the author attributes gender inequality to Hinduism, all world religions are patriarchal to some extent. Does it then follow that all inequality is rooted in religion, and thus a world without religion would be free from patriarchy? No, gender inequality does not necessarily emanate from a culture that has Hindu and Buddhist religions, and to attribute Nepalese gender inequality to its religious beliefs is a faulty argument. Gender inequality in Nepal is rather embedded more deeply in the patriarchal super structure that encompasses the country's cultural, political, legal and social systems.

The second example is the World Bank and DFID's joint endeavor to create the gender equality and social inclusion (GESI)[3] model. This model aimed to support Nepal's development strategy but ignored local feminist knowledge. Upon this, the Nepalese women's movement put forth its arguments during the Stakeholders' Consultation Meeting held in Kathmandu on 10 May 2005.

The following expression carries sentiments of the "Nepalese women's movement."

It is not the Hindu caste system as such but the Patriarchy that led to gender stratification and the exclusion of women. If it were only the Hindu caste system in Nepal that led to women's exclusion and/or gender stratification, then there would be no gender stratification and women's exclusion in Non- Hindu social and political systems of the world; Or even within Nepal there would be no gender stratification in other religious systems. It is highly un- academic and unprofessional to conclude women's exclusion to be the product of Hinduism and let the Patriarchy go scot-free (Bhadra, 2005).

Despite the sharing and vocalizing of critical local knowledge such as quoted above, the Nepalese Feminist Movement was unable to influence the western aid organizations' development of their GESI assessment model for Nepal. Rather, the western model diluted the Nepalese feminists' key feminist concerns for Nepalese women, such as violence against women, sexual and reproductive rights (especially the abortion right), citizenry/nationality rights(mother's right to confer citizenship to her offspring) and issues of women's political representation. The lack of Nepalese Women's Movement influence over the GESI has had detrimental consequences, as more and more donors, such as UN agencies,

3. The World Bank and DFID. (2006). Unequal Citizens: Gender, Caste and Ethnic Exclusion in Nepal. Executive Sum- mary. http://siteresources.worldbank.org/INTNEPAL/Resources/Unequal_Citizen_Executive_Summary

bilateral agencies (IDPG, 2017) and other multilateral financial giants like the Asian Development Bank (ADB, 2010; ADB, 2017) use GESI, despite its inappropriateness for Nepalese women. GESI as a development strategy not only diluted Nepalese feminist agenda but in fact created friction and fraction within the Nepalese women's movement based on caste/ethnicity and religious lines. The critique of GESI is documented further below,

For Nepalese women, the advent of GESI as a development strategy is proven as an uncalled for shift in GAD paradigm and the strategy of gender mainstreaming. It has posed a fatalistic interference to women's collective agency by overshadowing Nepalese women's movement and advocacy. In deeper analysis, the advent of GESI in Nepalese development context indicates towards some conspiratorial and whimsical scheme to undermine indigenous (meaning homegrown) Nepalese women's movement and feminist scholarship, and hijacking the spirit of robust Nepalese social movements; and forcibly mismatch-making of the two (Bhadra, 2016, p.334).

We Nepalese feminists and the Nepalese Women's Movement will continue fighting this battle, with spiritual energies drawn from our deep faith and reverence in Hindu, Buddhist, and Muslim religions, and the worship of nature prevalent in Nepal. Our fight is not against our religion neither it is solely against western feminisms; our fight is in fact against the Patriarchy prevailing within all structures, including the religion. We have already demonstrated our collective capability to moderate Patriarchy in 2016/17 local and national elections by securing women's representation in the governance comprising 41percent in Local Bodies, 34 percent in Provincial Parliament, 33 percent in Lower House of the National Assembly and 37 percent in the Upper House of the National Assembly. The warning in this paper to those so-called experts from the West is that they better leave Nepalese women alone to fight our own battle against Patriarchy.

Patriarchy in Nepal

Having asserted my feminist standpoint against western feminist interference, I now move to top up my feminist standpoint against in-country Patriarchy and its compliance to the Western theories, paradigms and methodologies when evaluating Nepal's development.

The Planning Commission initiated Monitoring and Evaluation (M&E) of development programmes from the implementation of the First Five Year Plan (1956-1961); focusing on collecting statistics which was not well conceived (http://www.country-data.com/cgi-bin/ query/r-9107.html). Only in 1992was M&E systematically prioritized in the Eighth Five-Year Plan (1992-1997). This led to the institutionalization of M&E for development interventions and the standardization of indicators. Currently, Research and Evaluation obtains a Divisional status among four Divisions of the National Planning Commission (https://www. npc.gov.np/en/organization_structure).

In his review article Dhakal (2014) identified the key theories of evaluations customarily applied in Nepal, such as theory-driven evaluation (Chen & Rossi, 1990), empowerment evaluation (Fetterman et al, 1996) and utilization focused evaluation (Patton, 2008). All the theories were conceptualized in the West. Although Dhakal (2014) mentions that evaluation consists of clear gender-budget codes to promote gender equity and equality mainstreaming gender aspects in each development sector,[4] he fails to review the National Planning Commission commissioned evaluation study on the Effectiveness of Women Targeted Programmes of the government of Nepal (Bhadra, et. al, 2003), that applied a feminist research paradigm and adopted indigenous methodologies, tools and research processes for gender analyses. [5]

4. It was as per the Gender Responsive Budgeting mandate of the Ministry of Finance since 2007.
5. Locally relevant gender analyses tools such as mobility mapping, activity analysis, decision analysis, resources access and control analysis, were used. These tools were also able to test any gender transformation happening at the local level. In the absence of

It was as per the Gender Responsive Budgeting mandate of the Ministry of Finance since 2007.

In his review Dhakal includes Key Informant Interviews (KIIs) as a tool used specifically for the triangulation of information generated from the documentary review. Although his focus on the review ranged from 1995-2012; he overlooked the need of KIIs in the Ministry of Finance (MoF). MoF officially initiated 'Gender Responsive Budgeting' (GRB) in 2005 and has mandated GRB in the Budget Management Information System (BMIS) and the Line Ministry Budget Information System (LMBIS) since Fiscal Year 2007/2008 (Bhadra,2016). This GRB mandate has been extended to other budget instruments such as Financial Management Information System (FMIS) operated by Financial Controller General Office and Aid Management Information System (AMIS) operated by International Economic Cooperation Division, MoF (Pokhrel and Khatiwada, 2013). GRB is Identified in three categorical codes (1, 2, 3) in the computer spreadsheet, viz., (1) Directly Gender Responsive, (2) Indirectly Gender Responsive, and (3) Gender Neutral; numerical codes are computed on the basis of five qualitative indicators each assigned with quantitative values[6] (see Table 1).

Every year during budget formulation government functionaries have to fill up the computer software that includes a designated "GRB column" in terms of 1, 2 or 3; where 1 = Directly Gender Responsive, 2 = Indirectly Gender Responsive, and 3 = Gender Neutral, on horizontally designated budget-line activity. Categories 1, 2, and 3 are calculated as per the qualitative indicators and quantitative weightage provided in the table above. The government agencies can monitor mid-year and/or at the end of

baseline data, innovative sampling technique was adopted to measure the effectiveness of programmes targeted to women.

6. GRB is an excellent tool for gender-responsive monitoring and evaluation of development programmes.

Table 1. Qualitative indicators and quantitative weightage of GRB

S.N.	Qualitative Indicators	Quantitative
1	Women's participation in planning and implementation.	20
2	Women's capacity development.	20
3	Ensuring benefits to women from the program and ensuring control over benefits – including programs for other target groups.	30
4	Enhancing women's employment and income generation.	20
5	Qualitative improvement in women's time-use and reduction in workload.	10
	Total	**100**

Note: >50 = Directly Gender Responsive, 20-50 = Indirectly Gender Responsive, and <20 = Gender Neutral.

the fiscal year (FY) about the gender-responsiveness of the budget expenditure. The government has also mandated gender-audit of women targeted programmes/projects if the programme/project budget is equal to or more than Rs. 50 million.

Initiated since the FY 2064/65 B.S. (2007/08 A.D.), Ministry of Finance has published the GRB history in terms of aggregated absolute amount as well as the proportion of the total budget in the above three categories, viz., Directly Gender Responsive, Indirectly Gender Responsive and Gender Neutral. GRB information can be accessed on the Finance Ministry's homepage (https://mof.gov.np/en/gender-responsive-budget-76.html). It shows that over the years the absolute amount of budget as well as the proportion of the budget is increasing in the Directly Gender Responsive category and gradually decreasing in the Gender Neutral category.

With Nepal transforming into a Federal State in 2015 comprising seven Provinces and 77 districts consisting of 753 urban municipalities and *gaupalikas* (i.e., rural municipalities); the bottom-up mandate of budget formulation devolves down to the 6743 "Wards" within urban and rural municipalities. The

Government of Nepal, Ministry of Finance has formulated a Directive for local level budget formulation, implementation, financial management and property transfer – 2074 (i.e., 2017 A.D.). This Directive includes the mandate of participatory planning and budgeting, socially inclusive budget prioritization, addressing gender responsiveness and social inclusion in the programming and auditing via public hearing. On this basis GRB has a strong potential for democratizing budget allocation and development evaluation based on "indigenous rationality" of local women and men.

The current Integrated National Evaluation Action Plan of Nepal (2016-2020) has been formulated with the objective to enhance the national evaluation capacity and produce evaluation-based evidences useful for better targeting and effective implementation of Sustainable Development Goals (SDGs) that is equity-focused and gender-responsive (NPC, 2018). A key activity identified is to develop tools and technology for 1) equity-focused, and 2) gender responsive evaluation; by piloting and tailoring into the national context in meta evaluation. This is hopeful for devising a 'democratic evaluation' that is culturally sensitive, bearing indigenous evaluation theories and paradigms. However, supported heavily by UN agencies and other development partners, there is a risk of Western dominance coming through funding with inbuilt Western technical assistance (T.A.) (T.A.s generally come with Western consultants[7]) and orchestrated theoretical supremacy. Nonetheless, the Action Plan identifies VOPE (Voluntary Organizations of Professional Evaluation) as a stakeholder in a supportive role. It is expected that VOPE supports the National Planning Commission, Government of Nepal to democratize development evaluation through the adoption of indigenous theories, paradigms, and processes bearing indigenous development values.

7. In the Foreign Aid Policy – 2019; it is stipulated that Nepalese citizens and Nepalese organizations should be hired as consultants; international consultants can be hired only in cases of lack of national experts.

In summary, this section has examined a middle layer in Nepal that is about the assertion of Nepalese feminism and the challenging of Patriarchy leading to the success stories of women's political representation in a "critical mass" and the adoption of Gender Responsive Budgeting that has the potential for truly democratizing development evaluation.

Indigenous Methodologies – The Inner Layer

Bhattarai (2017) argues that indigenous people's strength of self-organizing abilities, local governance systems, local knowledge, internal accountability and customary laws, and locally adapted cultures enables them to better manage the natural resources. These natural resources are not only their source of livelihoods but are interlinked with their cosmology and life systems with deeper cultural meanings.[8] However, an analysis of 71 international development evaluations published over the past 18 years found a dominance of Western evaluation theorists, situated predominantly in the USA (Chouinard& Hopson, 2016), with little mention of local knowledge or Indigenous peoples. In fact, many of these studies identified evaluation as a Western construct based on a modernist agenda, highlighting incompatibility with local and indigenous epistemologies. The authors concluded that as evaluators there is a need to recognize local cultures. These cultures contain knowledge and wisdom spanning thousands of years often as relevant today as ever and yet to be universally applied to the field of evaluation. Without some cognizance of indigenous epistemologies there is a danger that evaluation will recreate and perpetuate the colonizing past (Chouinard & Hopson, 2016).

8. However, the State does not fully recognize this indigenous human-nature affinity and has imposed policies and legisla- tions, threatening indigenous people's survival. These faulty policies and legislations may have resulted due to faulty evaluation of the forestry development programmes based on faulty theories of nature-human relation of indigenous people and the natural resources.

However Dhungana and RaiYamphu (2016) from Nepal argue that although blending of Western and indigenous knowledge may be useful it diverts indigenous researchers' focus away from thoroughly exploring the depths of indigenous worldviews and knowledge systems and thus hampers the indigenous knowledge discourse as a whole. Overtly challenging the colonial hegemonic research practices requires indigenous researchers to be included throughout the research or evaluation process, so they are not being marginalized in their local context. Hence the authors reject positivistic research traditions and choose to adopt flexible indigenous local methodologies of cultural procedure, values, behaviors and ways of knowing. Stating the fact that Nepal having 125 indigenous communities and 123 languages and cultures, they conclude that the Nepali multi-cultural context presents a useful ground to explore indigenous research procedures.

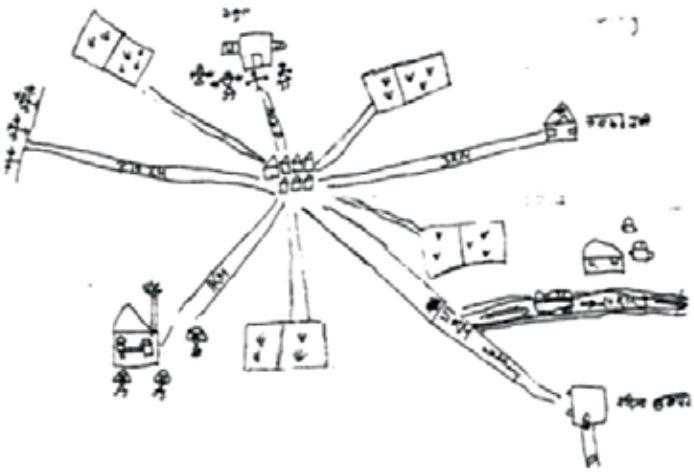
An additional point to heed, is that most men from these communities speak Nepali language due to their access to formal education, their extended mobility, and publicly conversing with other men in Nepali as a common lingua franca. Women, however, are more confined to their local communities, without access to formal education and cultural barrier to converse only in their own indigenous languages or vernacular dialects. Even in Nepali speaking communities, women have difficulty comprehending evaluators' questions due to their educational deficiency. This researcher-respondent language barrier during participatory evaluation has to be taken into account in Nepal. Allowing women ample time to comprehend the issue/subject of query and enabling them with women-friendly tools guarantees reliable response.

Five Case Notes are interspersed throughout this section, in which I share some of the issues while doing research with women and the evaluation tools used during my evaluation work.

Case Note 1. Evaluation of ILO program for ex-bonded families (2003-2004) – use of gender sensitive indigenous tool of social mapping for measuring resources,- work roles, mobility and recreation/socialization.

WOMEN'S GROUP MAPPING

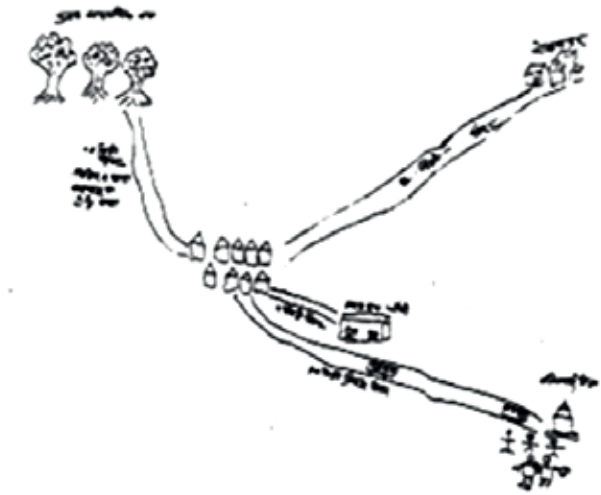
- Multiple tasking, restricted mobility and lack of access to transportation facilities
- They work in agricultural fields everyday; some nearby and some far away from home
- They often walk to the community forest 7 km. away, for fuelwood, litter and fodder
- They usually walk 1 km. to the mill for food processing
- They take their children to school 1/2 km. away everyday
- They often walk to the health post 3 km. away mostly for children's healthcare



- Once in a month they walk to the Office of Women's Welfare Forum 5 km. away but they cherish this long walk as an opportunity for recreation and socialization.
- On rare occasions they visit Nepalgunj city for marketing by travelling for 20 km. in buses.

MEN'S GROUP MAPPING

- Simple tasking, extended mobility and access to transportation facilities.
- They travel everyday by bicycle and buses to Kohalpurbazzar 5 km. away, for wage employment.
- They occasionally visit the community forest on bicycles for cutting fuelwood whereas women carry woods on their backs to home.
- They visit the health post on bicycles when they fall sick.
- They often visit Nepalgunj city on buses 20 km. away, for recreation and marketing.
- Once in a year they visit the cherished carnival of Goddess Bageshwari for religious ritual, recreation and socialization



Case Note 2. Study about the VAW among Nepali women migrant workers and responsiveness of Local Governance to ensure safe migration (2012): for Ministry of Labour and Employment, Ministry of Federal Affairs and Local Development, Ministry of Women, Children and Social Welfare and UN Women.

- One part of this work to evaluate the government's reintegration programme for returnee migrant workers.
- At least 14% of those women who were participating in reintegration programme wished to go back to foreign country for employment.
- Devised a research tool as "voices of women" for women's narrations in their colloquial languages.
- One woman's voice echoed, ***"Rather than putting up with the beating and battering of the so-called husband every day and night, I prefer to go to foreign country for employment".***

Lesson Learned

a) The government dwelled on the theory that women get vulnerable to VAW soon after they leave the safe haven of home; but the woman's voices echoed just the opposite about the prevalence of domestic violence.

b) In many instances women opted for foreign employment to avoid domestic violence.

c) That led to the paradigm shift for the government to focus on eliminating domestic violence for the reintegration programme to succeed.

Apart from language difficulties, evaluators have to be also sensitive to women's heavy workload and lack of their time to answer evaluators' questions. Conventionally consideration of researchers' cost of time precedes respondents' cost of time. We tend to design instruments and pre-estimate the required time for data collection before visiting the field. Enumerators generally

tend to adhere to the pre-estimated time frame. This results in enumerators persuading women to respond without being sensitive to their workload, their time schedule and without providing them enough time to comprehend the query and to answer them with ease. To demand their time at researchers' convenience has high opportunity cost to the extent of an "exploitation of women". Furthermore, there are researchers or evaluation funding agencies that believe providing financial or other kinds of incentives to compensate for women's time are beyond the research ethics for it creates dependency among respondents.

Case Note 3. CECI/USAID comparative evaluation of 8 Microenterprises (Nov. 1998- March 1999):

Issues of evaluation paradigm, tools and process;

a) Western paradigm of non-payment in cash or kind to respondents as it creates "dependency" if they are paid. National evaluators' feeling and assertion;
    i. It is an exploitation of women for taking away their time, knowledge and alternative employment opportunity and not to compensate them;
    ii. So insisted to pay the money for taking "gift" of woolen shawls to respondents useful during the cold months of December and January.
b) Questionnaires were too long in English language and then translated into Sanskritized Nepali.
    i. Created respondent-fatigue; hence the national team changed the timing with the provision of re-visits.
c) The client demanded full term stay by researchers in the field to save travel and subsistence expenses.
    i. But female researchers have their obligations towards the family and children back at home;
    ii. So negotiated with the client to return back home for a few days after every 8-10 days' of fieldwork.

Lesson learned

National consultants have to negotiate and navigate against the Western paradigm, tools and practice that may create exploitative situations for both the female respondents and female evaluators.

Researchers and evaluators often have lengthy survey documents requiring women more time to respond. This creates "respondent fatigue" and loss of attention span that impacts on the reliability of data. In this context, researchers/evaluators need to accommodate themselves with women's timings rather than demanding women to adjust to the researcher's timings. Researchers and evaluators should be willing to visit these women at their workplaces for instance to fields where they are performing their agricultural activities, to forests where they are collecting fodder or fuelwood, to water sources where they fetch water from and wash clothes. Experiences revealed that women are willing respondents if enumerators help them with their children and household chores. It will not only relieve women from their workload to participate in the evaluation but also breaks the evaluator-respondent hierarchy
.

Case Note 4. Annapurna Conservation Area Project (ACAP) - Water Resources Use (2002)

Women from the mountain villages reported that Engineers who came from the city should have consulted them before the construction of water-taps in their houses and irrigation canals for their lands; because

a) They (engineers) connected the taps but did not build water effluence duct;

b) As a result, there is sewage problem due to the blockage of dirty water in front of their homes.

c) Irrigation water eroded the sloped agriculture land so badly that they had to abandon the irrigation itself.

Lesson learned

a) **Indigenous knowledge of women can work better than the city dwelling engineers;** hence they have to consult women before the development intervention.

b) **Connect with women and allow them to speak:** before, during and after development interventions.

c) **But you do not connect with women at village "Chautaris"** (rest area where particularly village men rest and socialize): Women are working at homes and homestead, in forest areas and water sources, or in agriculture fields or tending animals.

d) **Women should be facilitated to express their "voices":** Allow spaces for women to express their voices "in their language" as village women speak in their colloquial languages.

The gospel of conventional research, "build rapport but maintain objectivity" does not work if you are doing research with women in Nepal. In a country where there is a massive trend of "feminization of poverty", you are dealing with the poorest of the poor. Not having empathy for their appalling conditions of poverty becomes very inhumane. Additionally, in a country where women are considered subordinate and discriminated against, you will be also dealing with victims of violence such as domestic violence, trafficking, rape, sexual abuse/harassment, gender-based untouchability, and so on. So in women's situation of sheer poverty and victimization in gender-based violence, it is not only unethical for evaluators to be aloof from their circumstances, but it is also inhuman not to be empathetic. Respondents are agreeable if you are understanding and make efforts to their dirt, dust and despair.

Case Note 5. Strategic Environmental and Social Assessment Report: for REDD Forestry and Climate Change Cell, Ministry of Forests and Soil Conservation (2014)

The Paradox of "Thinking Globally and Acting Locally" and the Dilemma of Forest Dependent Women (p. 87)

Fig. 1 - Grassroots women cutting grasses barely above the roots.

Lesson Learned

a) Dialogue between these two "Samdinis" gave a true picture of women's dilemma; programmes implemented without carrying out participatory gender analyses at the local level are detrimental to indigenous women's way of life and their livelihood.

b) There also occur instances of violence against women under the pretext of natural resources conservation.

While doing research with women in Nepal; it definitely pricks on researchers'/evaluators' conscience. There is always a big question for researchers. How do you deal with the guilt of "doing research with women in squalor during the day and bathing yourself clean with hot water in the evening"? It is for seeking researchers'/evaluators' compassion, conscience, ethics and loyalty toward women they have researched with. After finding out facts of feminized poverty, discrimination against women, their subordination and subjugation, should researchers be indifferent in the name of "objectivity"? Or should evaluators opt towards the imperative of advocacy/activism for gender equality and women's rights?

Concluding Remarks – A Holistic Liberation

As stated by Dhungana and RaiYamphu (2016), Nepal has a large number of indigenous communities speaking indigenous languages. They conclude that the Nepali multi-cultural context presents a useful ground to explore indigenous research procedures. To be truly democratic and inclusive to recognize the knowledge and rationality of local/ indigenous people including those of local women; there are three-tiered imperatives of liberation to be embraced by development evaluators.

a) **Liberation from the Western theoretical domination**: Firstly, we as development evaluators of South Asia need to liberate ourselves from Western domination in theories, paradigms, processes and practices of evaluation. We have most often failed to claim theories on the indigenous knowledge we generated via research with our respondents at the local level in this paper's context, the knowledge we collectively generated by doing research with indigenous women in Nepal.

b) **Liberation from the "expert self" for freeing as a "learner self":** Secondly, we need to do away with the burdens of carrying an image of an "expert self" and liberate ourselves as a "learner self". This liberation will prepare us for a true "democratic and inclusive evaluation". Indigenous people's/women's lived experiences with the local nature and indigenous culture contain tons of valuable knowledge that are relevant to their "need-based development" and "what is good for them". We just need to have compassion empathy, patience, perseverance and adequate time to listen to their perceptions.

c) **Liberation of the "development evaluation":** When you are liberated from the Western theoretical dominance such as that of "Theory of Change"; evaluators can go out freely with an open mind as a "learner self" for evaluation. True "democratization of the evaluation" occurs when evaluators facilitate indigenous people to voice their concerns and views. Grounding of theories can occur in a locally led participatory and inclusive evaluation. In my case I would say true "democratization of the evaluation" occurs when you laugh and cry with women with whom you carry out the "evaluation"; treasuring women's rationality, knowledge, and values.

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Chapter Four

Gongphel Zhibjoog: An evaluation of progress in Bhutan

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Introduction

Country Context

Bhutan is located in the Eastern Himalayas, north of India and south of the People's Republic of China. The Kingdom of Bhutan is small; a landlocked mountainous country in South Asia populated with 735,553 people (according to the Housing and Population Census 2017) that is growing at the rate of 1.3 percent per annum (RGoB, 2018). It is a country with a strong ancient Buddhist culture that was completely cut off from foreign influence for centuries. The country has been governed by a democratic constitutional monarchy since 2008, with the King as the head of the State. The head of the government is the Prime Minister elected from the ruling political party. The government is elected for a period of five years. The governance system in the country consists of Central Government and Local Government (NSB, 2018). The Central Government comprises 10 Ministries, Departments and autonomous bodies. The Lhengye Zhungtsho, or Cabinet of Ministers, has the executive power. Policy and any intervention decisions are made by the Cabinet Ministers by the parliament and at the higher level. The Local Government is comprised of district administration, consisting of 20 Dzongkhag (districts) and 205 Gewog (block administrations). Each Gewog consists of a group of households referred to as Chiwogs. The planning of development activities has been decentralised to the grassroot level, with bottom-up Chiwog and Gewog-based planning initiated in the 9th Five Year Plan from 2002 to 2007 (GNHC, 2019). Both decentralisation and devolution of power is evolving over the years, with the empowerment of people and encouragement of their participation.

Rationale of the paper

As the framework of development for Bhutan, Gross National Happiness (GNH) must guide planning as well as evaluation.

This necessitates an indigenous framework that acknowledges the diversity of experiences and perceptions of locals and actively involve the community in evaluation. Most importantly evaluation should form an intrinsic part of the planning and implementation of programs and policies (Katz, Newton, Bates and Raven, 2016). However, the practice of evaluation remains underdeveloped in Bhutan. Currently, the GNH index is used to measure GNH and it is also used as a critical evaluation tool of development for the results-based planning framework (GNHC, 2009). However, such a tool can be limited in evaluating GNH, which is an indigenous concept.

This paper is motivated by the need to develop a uniquely South Asian theoretical framework and practice of evaluation. Despite the remarkable growth in knowledge assets, evaluation capacities and democratic engagement in South Asia, what, how and for whom evaluation takes place largely ignores local knowledge, philosophies and realities. The exercise undertaken in this paper is therefore significant as it is an attempt to mainstream the substantial but underutilized local knowledge, theory and practice of evaluation in South Asia, to make it more responsive to the needs of the region. Bhutan's innovation in paving its own development path and evaluating the progress with creative measures can be valuable in responding to the urgent question of "what is uniquely South Asian in the theoretical framing and practice of evaluation?"

The paper begins with an overview of the origin of GNH and a description of how the GNH might more fully inform evaluation. The Indigenous evaluation paradigm that emerges from this is then applied to an examination and critique of the GNH index, asking how it might be improved and what other evaluation methods should we as a country be using.

Gross National Happiness

Background

Bhutan is a sovereign nation; self-governed and free from foreign influences. It has thrived in its old-aged Buddhist culture. It is home to the development philosophy of Gross National Happiness (GNH), through which the country's progress is measured using a holistic approach to wellbeing, rather than being based solely on the conventional measure of gross domestic products (Mitra & Jeong, 2017). After remaining under self-imposed isolation for centuries, in 1961, Bhutan opened itself to the outside world with the initiation of its first five-year development plan. In mid-1980s, under the leadership of the fourth King, the need for a Bhutanese path to development became apparent if local values were to be preserved from the influence of external factors. The king began to explore and speak about a specific Bhutanese path to development consistent with Bhutanese values, culture, institutions, and spiritual beliefs (Burn, 2011). His Majesty observed that the conventional development happening around the world often overlooked people's universal desire for happiness and peace in their lives (CBS & GNHR, 2016). He reminded Bhutan to cautious and discriminative while borrowing from developed countries, and preserve the centuries-old traditions that had worked for the well-being of the Bhutanese (Burns, 2011). For centuries, the Buddhist nation followed an economy and culture based on subsistence rather than consumerism (Burns, 2011). It is in this context that the King gifted Bhutan with the concept of GNH as an overarching development goal.

GNH is the overall guiding development philosophy of Bhutan (GNHC, 2019) and it strongly advocates achieving a harmonious balance between the material and non-material dimensions of development (GNHC, 2009). Under the aegis of GNH, Bhutan paved its own development path that emerged from indigenous knowledge and philosophy. Following the King's announcement of GNH, the government leaders started exercises

of understanding the concept and adopting GNH aspects in planning development activities, particularly the five-year planning process. In this context the Centre for Bhutan Studies[1] (CBS), the National Research Institute, was entrusted with the responsibility of studying Bhutan's development concept of GNH, developing a GNH index and indicators to inform the country's public policy and development, and designing tools to incorporate GNH into national planning processes (CBS & GNHS, nd). Now GNH is a functioning practice and so far, three GNH surveys have been undertaken, including the pilot survey in 2007-2008. The analysis of these surveys have been used in the policy formulation and five-year plan development. For instance, since the 10th five-year plan (2008-2013), the plans are developed explicitly based on the GNH index as one of the tools to measure and evaluate development (CBS & GNHR, 2016). The country is executing its 12th five-year plan currently. The Gross National Happiness Commission (GNHC) is the central government body for coordinating and spearheading policy formulation to ensure cohesion between sectoral policies and alignment with the national development objective and GNH (GNHC, 2017).

An Indigenous Evaluation Paradigm

The main essence of GNH is the idea that the goal of society should be the attainment of material progress together with psychological, cultural, and spiritual development while still maintaining harmony with the natural environment (Burn, 2011). According to Ura (2015), GNH envisages an ideal society in which a person is bonded deeply to a safe and supportive community where the trustworthiness of people is high, and the fear of victimizing by other human beings is ideally non-existent. A community is set deeply in a nurturing ecology, just as an individual is deeply bonded to a community. To realize this vision, the government sets objectives to provide enabling conditions for happiness (Ura, 2015 p.2-3). This philosophy of the co-existence of people and place,

1.Centre for Bhutan Studies (CBS) is now renamed CBS and Gross National Happiness Studies (GNHS) as the research agenda of the institute is dominated by GNH studies since 2005.

interdependence and nurturing, bears similarities with the values and perspectives of other indigenous people in their work on culturally responsive indigenous evaluation (Waapalaneexkweew & Dodge-Francis; 2018; LaFrance, Nichols & Lirkhart; 2012; Bowman, Francis & Tyndall, 2015; Chilisa, 2015; LaFrance & Nichols, 2010; Kawakami et al., 2007). GNH is indigenous in thoughts and reflects the values of Bhutanese people and their world view. This paper critically analyses how the practice of GNH in Bhutan could be developed as a culturally responsive evaluation framework, keeping its indigenous development principles in mind.

GNH Index

Background

Under the development framework of GNH, the GNH index is used as a measure and as an evaluation tool to inform policy making and planning in the country. The GNH index, constructed and based on the GNH survey 2010, formed an integral part of the 10th Five-year plan (2008-2013) formulation and is used in the 11th Five-year plan as key baseline indicators, particularly to track changes in ecology, culture, socio-economy and good governance (CBS and GNHR, 2016).

The GNH index was devised to serve multiple purposes; "(1) Setting an alternative framework of development; (2) Providing indicators to sectors to guide development; (3) Allocating resources in accordance with targets and GNH policy screening tools; (4) Measuring people's happiness and wellbeing; (5) Measuring progress over time; and (6) Comparing progress across the country" (Ura, Alkire & Zangmo, 2012 p 10).

The index is a western concept and may be justified based on the fact that GNH is an alternative approach to development. Integrating GNH with a highly westernized tool like an index may perhaps be necessary to make it acceptable to western scholars

or practitioners. However, an evaluation approach must not disregard GNH's original-line of thought that places high regard for the context, subjective and diverse experiences of people and communities. The details of the GNH index are discussed next.

The index is made of nine domains comprised of both material and non-material aspects of GNH, making it a multidimensional measure. There are 33 indicators that measure nine domains, and these indicators are composed of 124 variables. Table 1 shows the domain descriptions and the indicators.

Table 1: GNH measurement domains and indicators

Domains	Indicators
Psychological wellbeing: attempts to understand how people experience the quality of their lives. It includes reflective cognitive evaluations such as life satisfaction, and affective reactions to life events such as positive and negative emotions. It also covers spirituality.	• Life satisfaction • Positive emotion • Negative emotion • Spirituality
Health: comprises conditions of the human body and mind, thereby attempting to characterize health by including both physical and mental states. A healthy quality of life allows us to get through our daily activities without undue fatigue or physical stress.	• Self-reported health status • Number of healthy days • Disability • Mental health
Time use: measures time spent on work, non-work and sleep, and highlights the importance of maintaining a harmonious work- life balance.	• Work • Sleep
Education: incorporates formal and informal education, and tries to assess different types of knowledge, values and skills, which are mostly acquired informally.	• Literacy • Schooling • Knowledge • Value
Cultural diversity & resilience: measures the diversity and strength of cultural traditions including festivals, norms, and the creative arts.	• Zorigchusum skills (Artisan skills) • Cultural participation • Speak native language • DriglamNamzha

Domains	Indicators
Good Governance: evaluates how people perceive various governmental functions in terms of their efficacy, honesty and quality. Indicators help to evaluate the level of participation in government decisions making at the local level and the presence of various rights and freedom.	• Political participation • Services • Governance performance • Fundamental rights
Community vitality: evaluates the strengths and weaknesses of relationships and interactions within communities. This domain gathers information on social cohesion among family members and neighbors, and on practices like volunteering.	• Donation (time and money) • Safety • Community relationship • Family
Ecological diversity & resilience: measure people's own evaluations of the environmental conditions of their neighborhood and assess eco-friendly behavior patterns. It also covers hazards such as forest fires and earthquakes.	• Wildlife damage • Urban issues • Responsibility to environment • Ecological issues
Living Standard: measures the level of material comfort as measured by income, conditions of financial security, housing and asset ownership.	• Income • Assets • Housing

Source: CBS & GNHR (2016, pp 39-40).

GNH survey 2015: A case example[2]

In this section, I use the GNH survey 2015 conducted by CBS to illustrate how the GNH is used as a framework for evaluation in its country of origin. The third GNH survey was conducted in 2015 with the following objectives of: "(1) inputting to the 12th five year plan formulation; (2) Updating the GNH Index from the 2010 survey results, to provide comparable information over time to track changes in GNH by districts and groups; (3) generating literature on GNH and the GNH index for wide readership through publications in the form of survey reports and other thematic analysis" (CBS & GNHR, 2016 p 43).

2. Source: A compass towards a just and harmonious society, CBS & GNHR (2016).

The methodology used is a quantitative method; a cross-sectional survey design. A robust method was used for sample size estimation and a total sample of 8871 was estimated. The survey targeted people aged 15 years and above. The instrument used was a structured questionnaire consisting of 10 sections, including nine GNH domains and a section on demographic characteristics. A total of 66 Bhutanese enumerators with a minimum qualification of a university degree were recruited. They were trained and the survey was conducted between January and May 2015, covering the entire country. The survey was carried out face-to-face interview using paper questionnaires as well as hand-held computers. The face-to-face interview mode was chosen as an appropriate approach given the length and complexity of the survey questionnaire and the level of literacy of people in the country. Face-to-face interviews allow a high degree of control over the quality of information collected and give a high response rate in general. Data management and analysis were carried out by a team of CBS researchers (CBS & GNHR, 2016).

Outcome of the survey

The GNH Index was constructed based on the measures of nine domains covered in the survey. The index is a single number using a methodology for a multidimensional poverty index by Alkire and Foster (2011). The index is the rate or headcount ratio of happy people (H^H), plus the extent of sufficiency that not-yet-happy people enjoy (AUsuff). This second term is calculated by multiplying the percentage of people who are not-yet-happy ((H^H), which is 100% minus H^H) by the average percentage of domains in which not-yet-happy people have sufficient achievement. So, it is represented with the equation (below) that calculates the index.
GNH = HH +(HU*AUsuff)

The GNH index is a single number that ranges from zero to one with zero being the lowest possible value and one the highest value. The index constructed from the 2015 survey was 0.756,

which had increased by 1.7 percent from 0.743 in 2010. The index showed the percentage of people in the unhappy and narrowly happy group has slightly decreased while the proportion of people who are extensively happy had increased by about 2 percent in 2015, and the percentage of deeply happy people has remained the same as in 2010. The notable changes were in the domains of community vitality, psychological well-being, and living standards. The percentage contribution of the community vitality domain decreased from 12.40 to 11.56 percent, and psychological wellbeing decreased from 11.16 to 10.48, while the contribution of living standards increased from 10.26 to 10.92 percent (CBS & GNHR, 2016). This may suggest achieving a higher level of living standards comes at the cost of declining community vitality and psychological wellbeing, which is an interesting outcome that may need to be addressed through proper policy interventions. This survey outcome has formed an integral part the 12th five-year plan formulation, the plan is framed along the full nine domains of GNH (GNHC, 2019).

Is GNH index a culturally responsive approach of evaluation?

Social science research and evaluation generally discuss two main epistemological paradigms of research method, positivism and constructivism, that have opposing views about the nature of social reality (Katz et al., 2016). Positivism asserts that there is "an objective reality independent of the views of people and the aim of the research is to objectively describe social phenomena and identify the generalizable social laws that underpin human behavior." On the other hand, constructivism asserts that there is "no objective truth or reality but there are different ways of interpreting and understanding social phenomena, depending on the context and ideological positions of different stakeholders" (Katz et al., 2016 p. 3). Research based on the positivist paradigm is strongly associated with quantitative methodologies and often

referred to as western thinking while research following the constructivist paradigm adopts qualitative research. Literature associated with the constructivist paradigm is linked more with culturally responsive indigenous evaluation as the paradigm is more suited to identifying different subjective views and taking context into account (Katz et al., 2016). The paradigm is open to the local production of knowledge and the importance of culture. However, this does not undermine the use and importance of quantitative approaches in indigenous evaluation as both qualitative and quantitative methods can be used in culturally responsive ways within a constructivist paradigm. GNH index is a quantitative approach with innovative ways to make it culturally responsive in order to reflect the Bhutanese values and culture.

The GNH index has been composed of multidimensional domains and indicators in an effort to accommodate the entire idea of GNH, however, a main concern with the index is its capacity to accurately account for people's happiness in a single number. Evaluating the subjective nature of society's well-being and individual happiness needs to explain a wide range of variables. A main challenge in developing a reliable methodology is creating an accurate index that truly reflects the society's well-being and determining which variables need to be included. The variables included must reflect people's views and values. A pertinent issue in developing any index is the reliability and appropriateness of data, in which the instrument deployed in gathering data plays a critical role.

The nine domains of the GNH index resonate with the values of GNH, which is innovative. These domains form the latent factor and are composed of certain observable indicators and measures. The selection of indicators for a latent factor must be based on scientific and robust causational study. However, such scientific causational study for determining indicators for each latent domain in the current GNH index is absent and the indicators are selected based on some prior notion that a certain set of indicators influence

the latent factor (Tshering & Okazaki, 2012). The values represented by the indicators included to calculate the index were based on the government's understanding of what is important for and valued by the society, thus its construction was based on the official understanding of society (Tinoco, 2016) rather than individuals and community realities. This practice questions the relevance of the index as an evaluation tool. Further, correlation analysis used to study the causation between the latent domains and the indicators is a fallacy as correlation does not imply causation (Tshering & Okazaki, 2012). This may question the robustness of the finding.

In addition, an instrument used for data gathering must be able to reflect individual and community realities, which is termed as cultural framework of indigenous statistics (Lovett, 2016). Scholars have critiqued the items on the questionnaire of the GNH survey, for instance, the items on the GNH survey questionnaire pertaining to spirituality has been used for another piece of research that found some limitations in the instrument. An inconsistent finding between qualitative and quantitative studies on spiritualism and quality of life had been reported. The critique argued that the measurement of spirituality in the GNH survey includes only extrinsic components of spiritualism making the instrument limited to capturing the holistic notion of spiritualism (see Dorji, Dunne, Seib & Deb, 2017; Dorji, 2016).

Considering the above argument and criticisms, the GNH index although trying to capture holistic values of GNH principles remains limited, and consequently, the index is still an output of western thinking rather than a culturally responsive approach. By its design, the index may be limited in making sure that people get a meaningful chance to reflect on the different values of various aspects of development and in generating feedback loops for future policy and planning. Under such circumstances, the gap in society in the process of development can perpetuate. The GNH index may have served as a valid measurement of GNH but must be cautious as a culturally responsive approach of evaluation.

Increasing cultural responsiveness

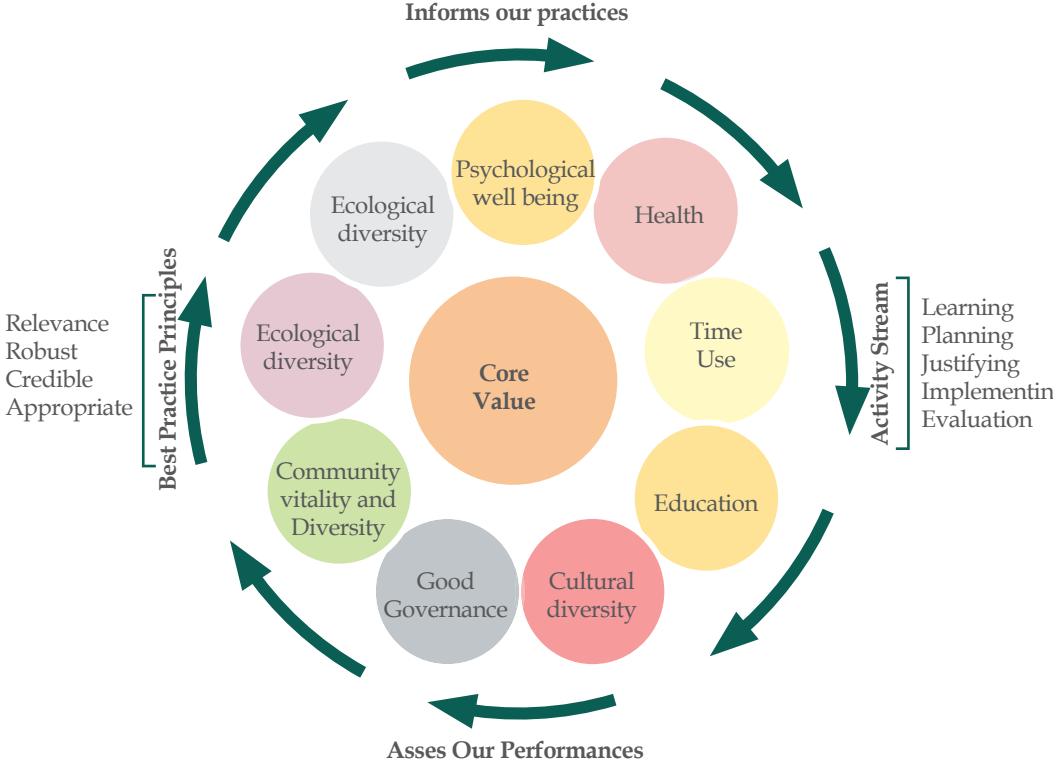
The concept of GNH advocates strong values, such as balancing spiritual and material pursuits to maximize people's well-being and happiness. Evaluating these values in a society involves considering complex and multi-layered societal and cultural norms. Although Bhutan may be small, there are diversity of customs and norms, dialects, community structure and most importantly experiences. Evaluation processes must be sensitive to these differences between different communities. In my opinion, using only a quantitative survey method to evaluate such holistic ideas is a limitation. Thus, the GNH index in the current state is not a culturally responsive approach of evaluation and it calls for indigenous methods of evaluation and data collection that can penetrate below the surface of rigor as defined by western epistemology of research and evaluation. The current way of collecting data through quantitative survey can be complemented by in-depth qualitative inquiry and using triangulation to establish the validity of findings. Such practice could bring GNH index closer to culturally responsive evaluation. Another way could be conducting a technical feasibility study of using GNH survey questionnaires to deploy as a culturally responsive evaluation approach, and test along the four best practices noted in figure 1. This can bring in additional values and improvement to the instrument for making it a suitable evaluation tool. Such technical feasibility study are used in other country for implementing new method or approach (see Wilson & Cram, 2018).

In addition to evaluation of the overall development policy of GNH, evaluation is also carried out for programs and projects. Although these evaluations are few and initiated mainly by GNHC, they are guided by OECD/DAC standard guidelines. This practice suggests that even though Bhutan brought in an innovative idea of GNH and evaluates progress using a GNH lenses, in practice it is still struck with traditional western ways. The use of an index

to evaluate the progress of GNH and following OECD/DAC guideline of program and project evaluation are glaring facts that show we need to be more innovative in inventing an indigenous measure that corroborates our thinking and to contribute to the progress. Further, the draft development evaluation policy of the government that I have reviewed as part of this exercise does not seem to situate in GNH framework. This suggests that the government does not understand that the evaluation needs to be localized or indigenized.

In this light, the evaluation framework depicted in Fig. 1 is suggested based on GNH values.

Fig. 1: Proposed GNH value-based evaluation framework and the best practice principles*



Source of knowledge: Indigenous advancement strategy evaluation framework in Australia, Australian Govern- ment and GNH Index

The framework is proposed to guide a consistent approach to all evaluation activity. The framework includes, a set of best practices and core values to ensure high quality evaluation that can be used in cycle of policy and community decision making.

Core values that are central to the evaluation are the GNH values reflecting people, community, culture, environment and governance in Bhutan. All evaluations in Bhutan must be guided by these core values. These core values will provide consistent a reference point about appropriateness, which will enable decision makers to understand the merits, worth and significance of policies and programs. It will also reflect the significant role of the strength of people and community in producing effective policies and programs. The core values will guide central evaluation questions and will form the basis for the best practice principles and stream of activity of the framework.

Best practice principles will guide the evaluations of all types. The best practice principle is grouped under four categories:

- Relevance: in terms of integration and being respectful;
- Robust: in terms of evidence-based and impact-focused;
- Credible: in terms of transparency, independence and ethical; and
- Appropriate: Evaluation must be appropriate in terms of being timely and fit for the purpose.

These practices will form the bench mark to aspire towards and are measures for assessing the performance of the framework itself. The framework will be reviewed against best practices and these review efforts will form the feedback loops for continuous learning and adaptation. This 'best practice' principle will also inform a stream of activity; learning, planning, justifying and implementing and evaluating.

According to Thin et al. (2017) the effort to make improvements in people's life involves looking at five aspects of the policy process, which includes (1) learning, (2) planning, (3) justifying, (4) doing, and (5) evaluating. The stream of activities in the framework includes learning, planning, justifying, implementing and evaluating which reflects the full cycle of the planning process. Learning involves understanding the context, including people, culture, norms and values and practices in the community that needs the knowledge to plan programs and activities. Planning interventions and setting objectives in partnership with people and community and understanding clearly how interventions would facilitate in achieving the objectives. Development plans are justified based on people's needs considering current and future generations. Implementing involves making sure that the developmental activities are implemented objectively and intrinsically beneficial to the people and community at large. Evaluating involves assessing development and making sure that people get a meaningful chance to reflect on the different values of various aspects of development and generating feedback loops for future policy and planning.

Conclusions

Bhutan brings in an innovative thinking with its GNH as an overarching development goal. GNH advocates values that are similar to that of other indigenous values, cultures, and beliefs. As a development framework, GNH must guide planning as well as evaluation of development. A suggested framework of GNH value-based evaluation is presented in this paper which suggests that the current practice of using the GNH index to measure and evaluate development practices in Bhutan may be limited by its design to reflect what GNH promotes. This paper argues that the GNH index in its current form diverges from a culturally responsive

indigenous evaluation framework and suggests that it must be complemented with more in-depth qualitative data. Further, the paper also suggests that a technical feasibility study of using the index as a culturally responsive evaluation approach may bring in additional values to make it an appropriate approach of evaluation for development.

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Chapter Five

Assessment-*Adda*: A Lokayat Approach to Another South Asia

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Introduction/Background

The practice called *Adda* is typically associated with the Bengali speaking populace in South Asia, locally and globally. Though precisely in the Bengali context of India and Bangladesh, the *adda* is a famous practice in the global South Asian diaspora communities in faraway locations- in South Asia beyond the cartographic borders of nation states too[1]. Technically, an *adda* is a semi-structured and informal congregation of folk who by and large belong to similar worldview. It is semi-structured in the sense that it does not have a prior decision on themes and agenda of deliberations. Also, the deliberations are on the spur of moment, determined by the most urgent issues in the minds of the participants. The latter have prior familiarity and precedence of frequent and patterned face-to-face interaction. *Adda* is thus a slice of a larger social structure guided by shared belief, folklore, stereotypes, idioms and cultural communication. However, the peculiarity of an *adda* is characterized by a paradox: shared worldview is usually contested in such congregations. The simplistic narrative of unity in diversity, rational deliberation, and peaceful dialogue does not necessarily define an *addabazi* (inclination to the practice of *adda*). Instead, it is about ridiculing, provoking, gossiping, the hilarity of expressions, and assessing with judgmental tenor with an iota of shared empathy. With a due informal touch to the practice folks in *adda* tend to assess actions and behavior of each other, efficacy and consequences of institutions and interpersonal endeavors. They may however do the assessments of each other by discussing something like party politics, international issues, or concerns of everyday life.

Some of these characteristics of *adda* enabled cultural historians of South Asia to consider it as an alternative to the modern bourgeoisie practice of rationally organized and structured

1. This proposition is informed by an exploration of socio-cultural South Asia in Pathak (2017).

conversation[2]. Furthermore, there has been a critical realization that like other social outfits, *adda* too could be divided along the lines of social stratification. Hence, there are *adda*s of marginalized folks, women and lower caste groups too. There could thus emerge a rank and file of *adda*s in the scheme of hierarchy. In this essay, however, we narrow down on the principles that govern the assessment practice in an *adda*, irrespective of the rank and file in the scheme of socio-cultural hierarchy. The essay posits that the assessment practice of *adda* resonates with one of the heterodox philosophical stream of thinking from the ancient South Asia. The socio-cultural practice of assessment and evaluation in South Asia is somewhat routed through the old philosophical notions that shape the folk worldview.

By offering an integrated reading of the twin categories, *adda* and the *Lokayat*, the latter explaining the former, this essay aids in developing a more nuanced approach to assessment practices. The nuance is envisaged in the practice of folk, sandwiched between certainty and probability of assessment. This will be detailed in the latter part of the essay. Suffice to say, at the outset, the propositions in this essay seeks to sensitize the idea of assessment by showing its relation with the social practice of *adda* and the *Lokayat* philosophy. While this happen with the terminology *adda* amongst the Bengali speaking folks, there is a similar mechanism found to be prevalent among non-Bengali speaking folks too. Synonyms of *adda*, thus, are *gapshap* (chitchat), *vichar-vimarsh* (discussion), *tark-vitark* (argument- counter argument), *guftgu* (conversation), *bahas* (debate) or atrendy one called time-pass[3]; these are popular amongst the non-Bengali speaking folks, in some form or the other, across South Asia. By looking at *adda*, thereby, we are seeking to develop an understanding about a larger phenomenon of folk practice of assessment in informal, everyday life, situations.

2. Among others, it is inferred along this line in the work of Chakrabarty (1999).
3. In this regard, it is worth recalling Jeffrey (2010) who looked at the phenomenon of timepass amongst the youth in Utarpradesh. Timepass assume the significance of a stopgap, a waiting period, before the youth take on formal occupation.

In this regard, we turn to understand what is the *Lokayat* philosophy and how it enriches the approach to folk paradigm of assessment in the practice of *adda*. Methodologically, we approach the *Lokayata* with a hermeneutic methodological orientation. It means reading the text closely, while keeping an eye on the idea of understanding and interpretation[4]. And to begin with, it is essential to note that some of the popular sayings associated with the *Lokayata* philosopher Carvaka, are commonly found amongst folks; one such saying is[5]:

Yawadjiwedsukham jived, rinamkritwaghritampibet

(As long as you live, live with happiness, even though it needs you to be indebt, do so to maximize happiness)

Such are the references to *Lokayata* in folklore, which underlines the materialist orientation to the cultural practice of assessment in an *adda* or its cognate practices mentioned earlier. It ennobles the self-interest of the evaluator; it emphasizes the importance of the personal-material benefit over disembodied values; it highlights the significance of a flexible version of empiricism in the approach to assessment[6]. For example, in an *adda* practice, the value of human rights would not be convincing unless it appears through the embodied experience and material benefit of the folk. Instead of the

4. Such hermeneutic approaches are discussed in Bleicher 1980; Mueller-Vollmer 1986, Pathak 2018.
5. There has been difficulty in locating one historical person as the founder of Lokayata. Its reference is found in the earliest sources like the Vedas/ Upanishads, the Buddhist suttas, the Jaina treatises, the Ramayana, and the Mahabharata, inclusive of some puranic and sastric works. These sources often present Carvak's standpoint in a negative and detrimental way. From such sources, certain sutras are cited as composed by the founder of the Carvaka darsana, Brhaspati. However, this name does not refer to one person with certainty. What we understand today as the philosophy of Lokayata is reconstructions of scattered references, including the work of Bijayananda Kar (2013).
6. However, one has to be watchful that Lokayat or Carvaka suffers similar reduction as Epicurus in the Greek tradition. They are looked at through a negative lens (Bhattacharya 2011).

lofty ideals, there will be a practical evaluation of anything under the scanner in the folk practice of *adda*. It would not ask, what value a program or a plan serves? Instead, an *adda*-assessment would explore, as to what personal-material benefits would be the visible consequence of any endeavor. The *Lokayata* orientation of *adda*-assessment underscores a pragmatic-praxiological-rationality.

Given the importance of the *Lokayat* philosophical tenets and their relevance for the assessment practice, it is worth pondering upon them to understand the details. In the following, there is an attempt to present a brief synopsis of the *Lokayata* tenets which are invariably connected with the practice of *adda*-assessment.

A Synoptic View of the Lokayata: Tenets for *Adda*-Assessment

The basic tenets of the philosophy of *Lokayata* enable an assessment approach employed in an *adda*. A paradigm of evaluation embedded in the *Lokayata* rationalism of the thinker named, Carvaka, informs the folk worldview in the practice of *adda*. However, this is only one of the three *nastika darsanas,* namely Jainism, Buddhism and *Lokayata*[7]. The word *darsana* has dual meanings; one is the literal meaning, that is, view; the other meaning, extending the idea of view,is worldview. The second meaning makes it available for the folk practice of assessment in *adda*. A quick explanation of the category of worldview is important. In the phenomenological discussion[8], as well as elsewhere, the worldview is considered to be a domain of cognition and meaning-making by the ordinary folks with a taken for granted stock of knowledge. In day to day life,

7. Likewise, one shall note that there are astika or orthodox darsanas, anemly: Samkhya, Yoga, Nyaya, Vaisesika, Purva Mimansa, and Uttara Mimansa. And many of these streams of darshanas can be contextually traced in the practice of adda too. But, for this essay, we are trying to fathom the Lokayata in order to understand the praxiological rationality of adda.
8. In this regard, we are informed by Schutz (1970), Berger and Luckman (1967) among others..

folks operate with the worldview without questioning it. However, it also means a rethinking of the worldview over a course of time. Epistemologically, Carvaka supports a kind of 'empiricist rationalism', in the act of assessment. It means trusting the seen and shown, the ordinary sense perception, and not a holy book or an authority. Neither the state nor international agencies could convince of a true claim. In this way, *Lokayat* dismisses trans-empirical entities such as heaven, hell, priest or scholar, soul or divine body etc. Any assessment or evaluation, in *Lokayata* scheme, summons a rationalist-empiricist-material verification. Besides, the verification has to satisfy not only sense organs, intellect, and reason, but also emotion and sentiments. An ideal assessment ought to be serving all of this for those who participate in the act of assessment. And yet, the assessment need not be a performance in absolute consensus. This is unlike most of the universal practices of assessment prevalent in professional practices.

Carvaka philosophy has also been popularly understood as a materialist philosophy, defying metaphysical claims of knowledge. No assessment can resort, in this sense, to the idea of a better world, or any mythology of an imagined sacred world, or any rationalist conception of an egalitarian world. Nor shall it solely rely on the lofty ideals of the modern world, such as equality, liberty and justice. Instead, it demands to assess on the basis of human material interest in this world, while one may fancifully cite some of the lofty ideals too in order to deal with the disquiet of the contesting participants. Not words, but practices of the folk shall be the premise for assessment and evaluation, in the *Lokayata* scheme. Since, it lays emphasis on practice, pragmatics, and material interest, the act of assessment also admits the limits of certainty. Absolute certainty is a myth since what is certain today can be challenged tomorrow by another vested interest. This provisionalism attached to with the act of assessment in the *Lokayata* is indeed unique. Given the fact that practices are fluid according to material interest, it is possible that all empirical or rational knowledge is bound to be imperfect. Such

is an interplay of certainty and uncertainty in the *Lokayata* scheme of assessment. It allows the assessment to be flexible for change in the due course of time. This takes place by accommodating the idea of probability, in the empiricist scheme of assessment[9]. Thus, it is not an absolute consensus that is at the core of cultural assessment practices in an *adda* practice. The perspectives held today in *adda* assessment need not be fixed.

The *Lokayata*'s philosophical tenet for assessment thrives a great deal on the conceptualization of self as well. Unlike the western philosophical and Indic Sanskrit tradition, *Lokayata* conception of self is not a metaphysical-transcendental entity. The self of an evaluator in the practice of *adda* is related to the material sensuous body, which is capable of thinking, feeling, and willing. It merges intellect with emotions, and, deeper intuition with empirical observation. It takes into account the capacity of the self in making choices, deliberation, decision, judgment qua assessments. It portrays a vulnerable and ordinary self too. The self, mired in the mathematics of interest in the material world cannot afford a pretension of a supra-material entity. Hence, the self, engaged in the act of assessment of others, is ready to converse and quarrel at once. And while one assesses others, in the scheme of *Lokayata*, one is also assessing oneself. This indeed adds dynamicity to one's self assessment.

Multiple Scopes for Evaluation Theory

Beyond the sophistication of intellectual practices, the materialist, empiricist, and rationality of the *Lokayata* constitute the folk

9. Some later followers of Carvaka, namely Purandara, openly declared the validity of inferential knowledge alongwith the perceptual knowledge. The idea of inference provides legitimacy to knowledge which is not directly sense perceived but is in principle perceptible.

worldview in *adda*. Folks assess everything, from actions to behavior, ritual performances to institutions, individual interactions and relationships inter alia. Indeed, notions, values, taken-for-granted ideas, stereotypes, and many such socio-cultural devices, determine the logic of practice entailed in the folk assessment. Most of the acts of commenting on each other, passing humorous judgments, ridiculing each other, and yet sharing views are organized around the fact that the folks are vulnerable, driven by self-interests, and the empiricism of observation. The tradition of heterodoxy in South Asia leads to the understanding that the assessment paradigm is informed by the philosophies of the region[10]. And thus, it delivers a paradigm of assessment with epistemological significance and methodological originality. By paradigm, we don't mean method or technique. The usage indeed is informed by Kuhn's (2012) illuminating discussion according to which a paradigm is also about the practice of a community that follows the assumptions, beliefs, and a common minimum practice related to the paradigm[11]. In this essay, the paradigm has instead to do with the worldview of assessment, with the question: how do folks assess each other? In an *adda* practice, folk assessment of each other is guided by sheer logic of everyday life. They accept the barbed remarks, hoping that there will be an opportunity to avenge and pass equally disturbing remarks about the other. The act of assessment, fraught with challenges and ridicule, hilarity and opposition, may not necessarily lead to a great enlightenment for a radical change. But the fact that someone has flagged an issue suffices. At some other *adda*, someone may return to the flagged, but not unanimously accepted assessment. This also suggests that a localized *adda* assessment is not necessarily aimed at a revolutionary change over night. If at all, changes are slow and

10. Elsewhere, there has been an attempt to see the philosophical significance of folklore (Pathak 2018); in this essay, for a change, there is a proposition that a particular philosophical strand tends to intersect with philosophy.
11. Kuhn uses the idea of paradigm specifically in relation to a puzzle solving normal science. This means that the predominant model of assessment is guided by such a paradigm .

steady, cumulative and concerted.

This is a relevant interjection in the assessment discourse, since philosophical propositions are seldom explored. This can also be the case with refreshing addition such as Development Evaluation, which tries to sensitize assessment to the context, though it falls short of giving the leeway to an evaluator to be conversant in the local practices of assessments. In general, there is rarely an attempt to build on indigenous evaluation paradigms, which operate with philosophically constituted worldviews. By doing a reading of the *adda*-assessment in relation with *Lokayata*, we get to understand the folk behavior inclined to the acts of assessment and evaluation. This is also a relevant contribution since assessment discourse, by and large, has been de-philosophized and de-theorized, leading to the reduction of assessment into methods and techniques or a disembodied approach in which details of cultural contexts do not factor. This essay emphasised that assessment is also a philosophically promising and epistemologically profound exercise.

With the *Lokayata* stand on the nature of knowing, feeling, assessing, and evaluating, a range of new motifs emerges in the South Asian variety of evaluation theory. It is a folk pragmatism in which assessment of each other is premised on a rational-material-empirical scheme. In this scheme, the here-and-now of human existence matters more than either metaphysical or futuristic utopias. And while there is a tendency to assess with some amount of certainty, there is no denial of the provisional character of a judgment nor one forgets that there is always a probability of reading between the lines.

Concluding Remarks

The essay has attempted a qualitative reading of the evaluative arrangements in the structure and practice, in the domain of folk, the so-called little traditions of South Asia. It reads the *Lokayata*

philosophy in order to unravel folk pragmatism entailed in the practice of *adda*. In the methodological temperament of a hermeneutist, the essay underlines the local idioms and categories employed in a participatory model of evaluation performed in the socio-cultural congregation of individuals. In implication, this envisages developing an idea of perpetually evaluating south Asian society through the means of folk wisdom and discursive structures of *adda*. This aids in understanding yet another facet of South Asia beyond the cartography of nation states, located in the cultural-emotional geographies of the region. This is done in continum with the project of exploring 'another' South Asia, by looking at its thought systems, cultural and performative natures, which do not abide by the bureaucratic formulation of SAARC[12].

But, there is scope to see the relation of the folk practice of assessment with other philosophical streams of thought too. For example, there is evidences of the medieval practice of *Mimamsa* philosophers who entered into duel with rivalling philosophers, or likewise the public debates of the Buddhist scholars who engaged with the public on the basic tenets of Buddhism. The *Mimamsa* and Buddhist philosophers may have had a more sophisticated variety of intentions, objectives, and stock of knowledge at their disposal. And similarly, there are evidences of the Nyaya philosophers engaging in scathing discussions with the Buddhist philosophers. Such instances invite further investigations into the local practices of assessment in South Asia. This essay has restricted the discussion to the instance of *adda* assessment with its worldview resonant with the *Lokayata*. In an *adda* practice, the goalposts may be mundane leading the participants to resort to the mix of intellect and emotion, practices and faith, superstitions and stereotypes, inter alia. However, an *adda* unfolds various categories, terms, glossary, concepts, and rivaling perspectives on an issue, individual, incident, or anything newsworthy. It presents a site of localized and participatory evaluative practice. Needless

12. See Pathak(2017).

to say, an empirical context of assessment such as *adda* could also be informed a great deal about the modern South Asian thinkers. After all, there are instances of Mahatma Gandhi engaging in an exchange of letters debating various issues of concern including the legitimacy of alcohol consumption and the validity of swaraj. Many such instances assume significance in the aftermath of the exploration of *adda* assessment.

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Chapter Six

Evaluating Sri Lankan Indigenous Knowledge in Agriculture, Water Management and Food Sectors

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Background

Indigenous Knowledge

Indigenous knowledge (IK) also known as 'local knowledge', traditional (indigenous) knowledge (TIK), traditional (ecological) knowledge (TEK) and community knowledge, refers to the large body of knowledge and skills (i.e., Knowledge Systems and Practices/lKSP, Indigenous Technological Knowledge/ITK) that have developed to enable indigenous communities to express their cultural values, and to better survive and sustain their vitality. All parts of the world inherit such IK practices and South Asia has been in the forefront with its wealthy collection of IK supported by culture, environment and agri- based communities (Anon, 2000).

More importantly, IK is a local-level decision-making tool in rural communities in South Asia. As such, changes, improvements and investments result in indigenous communities can be considered as evaluation criteria. Moreover, in comparison to conventional practices, IK promotes improved accuracy, assurance, quality, responsibility and stewardship in agriculture, human and animal health care, food preparation, building and architecture, administration and politics, security, education, institutional management, natural resource management, social and cultural activities (Anon, 2002; Ulluwishewa & Ranasinghe, 1996).

Indigenous Knowledge in Sri Lanka

Like many countries in the South Asian region, Sri Lanka is rich in Indigenous knowledge (IK) practices, materials and people. The majority of IK in Sri Lanka is embedded within the country's inherent features of agriculture, water and forests (Anon, 2000 & 2002). The example of '***Wewa-Dageba,Gama-Pansala***' landscape system signifies harmony of the environment (crop, soil, water) with culture, religion and people (Fig. 1).

Fig. 1 Traditional *Wewa-Dageba,Gama-Pansala* system signifying harmony of the environment (crop, soil and water) with culture, religion and people in Sri Lanka

(Photo credit: Mendis Wickramasinghe)

Over time, different religious communities (e.g. Buddhist, Hindu, Muslim, Catholic) have developed everyday practices that suit their individual philosophies, resulting to knowledge in agriculture, livestock, hunting, trade, fishing, medication etc. Various regional level communities in the hill country, low country, mid-country, North Central Province, and Northern Province have also come up with IK specific to their respective localities, such as kandian, bintenna, sabaragamuwa, rajarata and northern.

There is evidence that IK in Sri Lanka has been immensely influential in the development of the country (Anon, 2002), although the magnitude and level of IK usage cannot be easily assessed to understand the full impact it has had on the development of Sri Lankan society. In today's context, best practices in the implementation and development of IK could be informative and

useful in their own right, or as hybrids that amalgamate IK with selected conventional methods.

Types of indigenous knowledge in agriculture

Sri Lankan IK on agriculture has been furthered by extracts from the teachings of Lord Buddha on balance and the neutral undertaking of farming; learning from King Parakrama Bahu on maximizing natural resource utilization especially rain water conservation towards sustainability as also documented by Robert Knox, Martin Wickramasinghe, Pandula Endagama, Senerath Paranavithana and C W Nicolas on appropriate and ecological farming. The capacity of IK to contribute towards the development and sustainability of the country is therefore well-proven through viable embedding of such practices in culture and society (Anon, 2002, 2010 & 2017).

Evaluation of IK

IK is continuously developed, adapted and passed down from previous generations and is closely interwoven with people's cultural values. Hence, it would be ideal to assess the complementary role of different IK systems in human, the environment and society, owing to the immense potential of IK to benefit culture and society. Such 'best' IK practices and methods cannot be replicated without a self-assessment by the communities. Nevertheless, formal assessment mechanisms are scarce, except where indicators and forecasting are being used. However, IK is often contrasted with the 'scientific', 'western', 'international' or 'modern' knowledge systems generated by academia in universities, by scientists in research institutions and by entrepreneurs in commercial organizations (Handawala, 2001).

Rationale

Despite immensely rich and well-documented IK practices in the South Asian region, the role and potential impacts of IK for developmental processes have not been explored much in absence of formal evaluations (Anon, 2002). Hence, this study is focused on the evaluation of the existing information pool of traditional and local tools, methods, practices and people. The focus of IK in this paper relates to agriculture, irrigation, water and food sectors in Sri Lanka analyzing how and to what extent such (i) culturally relevant methods, tools, philosophies and perspectives, and (ii) rituals and religious beliefs etc. have been evaluated in terms of sustenance, fair sharing, mobilization of inputs and resources and mutual benefits etc. compared to western approaches.

In order to compile the contents in this paper, the following methodology was adopted.

a) Exploration of information for identification of IK uses, technologies and practices in agriculture, irrigation, water, food and nutritional aspects through past literature,

b) Identification of potential best practices to harness IK technologies and practices with environmental, economic and social values as case studies, andLink the evaluated IK methods appropriate for attaining Sustainable Development Goals (SDGs) obligated by the country to contribute to the sustainability of the agriculture and food sectors in Sri Lanka.

Findings

Historical background and use of IK in Sri Lankan agriculture

The recorded history of Sri Lanka since 534 BC runs through influences by Indo-Aryans, Portuguese, Dutch, British dominants

and indigenous civilizations. The self-oriented development and sustainability of the country have existed for many years and have been attributed to practices based on accumulated knowledge, especially knowledge of hydrology, agriculture, engineering and culture (Anon, 2002; Ulluwishewa & Ranasinghe, 1996).

Upon review of history, the Sri Lankan civilization has sustained for many generations over many millennia has depended on judicious indigenous practices and highly effective natural resource management. This has ensured food security in the country, which was most famously recognized as the ***'Peradiga Dhanyagaraya"*** - the 'Granary of East Asia'. During King Parakramabahu's era (12 AC) Sri Lanka has provided sufficient food for local communities, with the excess being exported to neighboring countries. The high productivity of agriculture and lands was also documented in 17AC with this probably assessed through the presence of productive arable lands and indicators such as earthworm density and bird attractions (Anon, 2002).

Documentation of IK in Sri Lankan agriculture

Documentation of IK that has covered indigenous people, and indigenous methods, practices and institutions was undertaken in anticipation that this will help protect and benefit relevant communities. It also has the potential to: support institutions and government agency work on conservation; facilitate the proper utilization of best practices of IK methods for sustainable development; and create motivation and interest among farming communities about conservation and combating issues specific to regions (Helvetas, 2001; https:// statistics.fibl.org/world/operator-world.html; https://www.researchgate.net/; Mohotti, 2002). In this connection, initiatives and leadership have been documented for networking by the Sri Lanka Resource Centre for Indigenous Knowledge (SLARCIK), the Sri Lanka Council

for Agricultural Research Policy (SLCARP), the National Science Foundation of Sri Lanka (NSF) and Helvitas Sri Lanka. GEF (Global Environmental Facility) SGP (Small Grant Projects) of UNDP Sri Lanka has immensely contributed to facilitate harnessing and demonstrating of the best practices of IK in identified communities for the purpose of social and environmental benefits. However, formal evaluation of these IK practices is yet to be performed (Anon, 2002 & 2010; Helvetas, 2001; http://www.gefsgpsl.org).

A few examples of IK applications in agriculture, water, irrigation and food sectors in Sri Lanka are described in the next section. The evaluation theories and practices applied in the assessment of their efficacy are implicit. Further conceptual analysis of the findings is therefore required to uncover the evaluation philosophies and methodologies involved, as no reference is made to the evaluation of such IK applications in development processes, either by individuals or communities. This further analysis will support the design of contemporary IK evaluation methodologies for the South Asian region and help ensure better sharing of the IK wealth in the region (Anon, 2000).

Agriculture Sector

Through resource sharing for efficient land use and crop management, the best example is the Aththam mechanism of participation in all agricultural operations by all community individuals (i.e. men, women, children, co farmers, neighbors). This form of strong community participation was traditionally practiced, especially in paddy cultivation (Anon, 2002; Mohotti, 2002; Ulluwishewa & Ranasinghe, 1996).

Guardianship of resources in rural villages was a prominent practice in IK in Sri Lankan agriculture sector for effective land use while landscaping of the village ecosystem has been traditionally demonstrated in the country around the Wewa (large

tank). Other unique examples are; for self-dependence, biological pest management and sustainable crop production systems, strengthening of home gardens, Kandyan Forest Gardens (KFGs), spice gardens and use of traditional local crop varieties, traditional seeds and local breeds and use of pesticidal plant species such as Marigold, Neem, Adathoda, Mee etc. in avenue planting and mix cropping (Anon, 2002 & 2010; Gunasekara, 1994; Helvetas, 2001; Maddumabandara, 2001; Tennakoon, 2000; Ulluwishewa & Ranasinghe, 1996).

Additionally, soil health has been assured as attempts to improve ecosystem services and a measure in biodiversity conservation through natural farming practices in soil fertility and moisture management such as recycling of farm yard manure and crop residues such as straw and husk, mixed cropping, crop rotation, crop livestock integration, minimum tillage and fallowing, use of organic manure, mulching, tree crop integration and avenue planting (Anon 2002; Helvetas, 2001; Devanarayana, 2007 & 2016; Gunasekera, 1994; Mohotti, 2002; Smith, 2007; Ulluwishewa & Ranasinghe, 1996). Ranjith de Silva of Galaha vouched hand on experiences in the north, eastern and southern provinces of the country when working with IK people on regional specific local practices (personal communication).

Sri Lanka has been leading in IK practices with respect to pest avoidance. Kem and neketh / rituals, chanting Pirith Yanthra – Manthra, sounds based chanting, smell-based Kem, utilizing local medicinal plants in Kem Pooja, burning and fuming, light traps, ashing, hanging branches and leaves with pesticidal properties. For chasing other nuisance pests such as birds, elephants, rabbits, rats damaging crops, Sri Lankan traditional scare crow viz. Pambhaya and tree-top security huts (Pela) have been successful (Devanarayana, 2016; Helvetas, 2001; Mohotti, 2002;). Also, some communities continue in their spiritual belief systems, including Pooja, worshiping, pleading for success for hazardous and risky

operations in agriculture using traditional equipment, knives, hunting, felling trees, gem mining (Helvetas, 2001; Mohotti, 2002; Ulluwishewa & Ranasinghe, 1996). Devanarayana of Peradeniya and Attanayake of Badulla vouched for unbelievable systems securing crops and villages through such unique IK systems in the country while Upawansa of Nawalapitiya and Prof Sarath Bandara shared hand-on experiences of how fruits and paddy lands could be safe guarded from wild elephants and monkeys by practicing Kem and neketh / rituals (Personal communications).

It is also important to note the conceptual approach in ***'Kekulama'*** and ***'Nava Kekulama'*** rational water use and rainwater capturing have been maximized in upland paddy cultivation as a resource limiting agriculture in conventional farming practices. This has also been claimed with hand on experiences by Upawansa of Nawalapitiya where higher rice yields were obtained during dry months of the year (Mohotti, 2002). Raring and respecting cows and use of cow dung for flooring farm houses is an indication of harmony with people, animal and rituals (Devanarayana, 2016; Helvetas, 2001; Mohotti, 2002). Personal research experiences indicate the level of adoption of best practices of IK to perform biodynamic tea and paddy cultivations securing Demeter certification and as a proof of evaluation of harnessing IK practices in development purposes.

In parallel, interactions within and among components of IK and restoration through enrichment of village ecosystems are a result of eco system management and services in food, fruit, shelter, spices, and timber supply. It is also important to note the indigenous practices of participatory forest resource management especially in bee keeping and harvesting giant bee colonies in the wild. Natural farming and pollution control measures in agricultural households were seen facilitating water-shed protection while community access to the wild and conserved areas through traditional and community beliefs and rituals is governed by community/ village

leaders demonstrating wise use and conservation of natural resources (Anon, 2002; Gunasekara, 1994; Mohotti, 2002). Other key IK practices include prediction of seasonal weather (e.g. rain and droughts) via indicators of animal movements, cloud conditions, and wind directions supported with timely cultivation of variety of crops and dependence to a cropping calendar based on astrology or lunar calendar as directed by a community leader, astrologer or a priest of a Buddhist temple or Hindu kovil (Devanarayana, 2007 & 2016; Mohotti, 2002).

Irrigation and water

Undoubtedly Sri Lanka deserves accolades for its unique irrigation and water supply methods in dry zone areas where efficient and safe capturing of rain water, collection, passing towards other areas have been done through the use of Cascades and Mini tanks. Further, for areas with scarcity of water, Jaffna in northern part of Sri Lanka demonstrated the highly successful traditional andiya wells. Numerous proven examples of water conservation, water retention, water infiltration and minimizing sedimentation have been accomplished very effectively through systems such as Rajakariya, Wel vedina, Bethma, Thattumaru etc. where wise use of available water in a village has been monitored and administered through assigned personal in the community. Karunatilake Mohotti of Akuressa, Sampath Ariyasena of Passara and Tilak Kariyawasam of Elpitiya discussed existence of such strong water availability at all elevations (Personal communications). Watershed management, protection and reforestation of upper water sheds have been achieved by involvement of sanctity linked with watersheds. Parallel cultivation especially paddy, pulses and vegetables in the entire landscape called yaya systems are reported to protect ravine and watersheds besides the choice of short-term crop varieties, sawing paddy during dry periods practicing kekulama or Nawa kekulama).

Status of high water quality on the other hand were ensured

through IK practices such as minimal agricultural pollution via the use of less input - responsive traditional crop varieties, natural filtering in stream and river banks using water purifying, and phytoremedial plants such as Kumbuk trees and water channels rich with natural vegetation banks. For safety and additional security, water consumption from tanks/reservoirs during dry spells has been restricted by community leaders due to probable pollutants concentrated expected in the water (Anon, 2002; Gunasekara, 1994; Helvetas, 2001; Mohotti, 2002; Tennakoon, 2005; Ulluwishewa & Ranasinghe, 1996). Drs Sarath Amarasiri and M U A Tennakoon clarified how clear and safe the water in wells, rivers and lakes were even during dry spells about 3-4 decades ago. Also, Devanarayana of Peradeniya recollected that clear water in wells near Kumbuk trees (Personal communications).

Food

The community leader and ***Wel vidana*** system were reported to administer synchronized planting and timely harvesting; they have also been supported by planting calendars and cropping operations according to lunar positions and astrological beliefs thus ensuring maximum production, minimized post-harvest losses etc. Post-harvest losses during storage have been curtailed ensuring maturity of the harvest by timely harvest and traditional pest repellence methods in the storage bins i.e. ***Bissa*** (Anon, 2002; Devanarayana, 2007; Mohotti, 2002; Ulluwishewa & Ranasinghe, 1996).

Self-sustenance in the food and nutrition requirement of Sri Lankan communities has been evident since ancient times in traditional homes and home gardens, where ample collection of crops, spices and fruits in the back yard as well as preserved food in kitchen stores were discovered. Rural experiences of Attanayake of Badulla; Jayatissa of Matale; Karunatilake Mohotti of Matara; Sampath Ariyassena of Passara qualify as time-tested indications and proven

food availability without scarcity (Personal communications).
It is also interesting to note a wide array of food processing and preservation techniques for seasonal food crop harvests, chilies, lemon, spices etc. Storing paddy in ***Bissa***, ***Atuwa***, ***Dummessa*** and storage of other varieties of seed in the sand to stop germination are also considered unique. Drying and dehydration using salt preservation methods have been deployed especially for meat and fish (Anon, 2002; Endagama, 1998; Devanarayana, 2007; Helvetas, 2001; Mohotti, 2002; Tilekeratne, 1988; Ulluwishewa & Ranasinghe, 1996). Collections maintained by Attanayake of Badulla are proof of local evaluation of such IK applications in food security (Personal communication).

Further, traditional communities have depended on wild harvests such as bee keeping, medicinal plants, timber, fire wood sources etc. without interfering with nature. They can be considered as having more sustainable harvesting approaches for food crops and medicinal plants as well as for the hunting of wild animals and fishing. Veddahs, the ancient tradition of tribal community groups offer bee honey to the country's prime and most sacred temple of the tooth of lord Buddha (i.e. ***Dalada***) annually which is an evaluation indicator of the sustainability of food for all communities in the country. The offer of the first harvest of rice to the Sri Maha Bodhiya is another symbol of sustainability and food security (Anon, 2002; Helvetas, 2001; Mohotti, 2002). Shireen Samarasuriya and Prof Nissanka shared their personal experiences when working with Veddah communities on assessing practical attempts of restoring wild harvests, the wise use of forest resources, sustenance on healthy and nutritious food to needy groups in their communities i.e. children, pregnant mothers and elderly people, imposing hunting policies in the wild (Personal communications).

Key elements of IK in Sri Lankan agriculture

IK agricultural methods exhibit conservative nature farming principles that support community development and the sustainable use of biodiversity in the farming system. The degree of indigeneity and the success of the different methods, however, have been dependent on (i) custodians of the methods (farmers), (ii) locality (agro-ecological region),crop situation, (iv) season, and (v) systemic practice and rules pertaining to the methods (Anon, 2002; De Silva, 1994; Helvetas, 2001; Mohotti, 2002).

Amongst the vast IK collections unique to Sri Lanka, the following key elements were extracted to showcase South Asian local knowledge. These have the potential to reap multiple benefits for the nation and food sovereignty, in addition to paving pathways for harmony among crops, animals and humans.

i. sustainable and resource limited farming in Chena and Aththam cultivation systems,

ii. hunting, fishing and forest resource utilization by Veddahs,

iii. paddy cultivation entrenched with Buddhist temple, tank (reservoir) and village (***Wewa-Dageba,Gama-Pansala***) system signifying harmony of crop, soil and water environment with culture, religion and people in the society (Fig. 1),

iv. weather forecasting using natural signs of wind, bird movements etc.,

v. soil conservation and water management for climate change mitigation,

vi. biodiversity, seed and planting material protection,

vii. natural pest management,

viii. medicinal plant use in Ayurveda and animal medicine,

ix. effective community participation through informal mutual

help group systems (*Aththam*) as against labor-intensive agricultural activities such as land preparation, planting, weeding, and harvesting of paddy, hill-slope agriculture performed in the absence of machinery, and

x. substantial recognition given to farmer (goviya), farming (govi kama) and farming community (govi kulaya) among other community groups in the society to showcase and uplift IK based agriculture in the country for sovereignty.

IK in Evaluation

Different IK systems undoubtedly play a significant role in the human, environmental and society in all facets of development, resilience in income, food, nutrition and social integrity among communities. Nevertheless, the contribution of such practices, methods, materials and people in the sectors of agriculture, irrigation, water and food sectors in Sri Lanka has not been formally evaluated either by individuals, communities and or outside parties. However, the pronouncement of food security in Sri Lanka during King Parakrama bahu's era (12 AC) did not have any quantified data. Rather, the pronouncement was based on self-assessment, and vouched by community leaders. A similar evaluative process might be formalized for the IK practices described here.

In reviewing information on IK in Sri Lanka, a few examples of harnessing best practices in agriculture, irrigation, water and food sectors were captured as interactions, rewards, financial and other benefits resulted to the communities. The multiple benefits to the rural communities indirectly showcase the high and medium impacts of such IK uses. Table 1 summarizes a few outcomes of community projects utilizing local and IK practices in development purposes while ensuring environmental and social benefits to the community, region and country as well as addressing the SDGs on a global level. The examples also provided some insight into the ways in which the more formal assessment of IK was sought.

Table 1 - Case studies of harnessing local and traditional knowledge practices for multi benefits to rural communities in Sri Lanka as examples of IK in evaluation

Community project	Project outcomes in relation to IK in	Reference
Local culture		
Engaging the Indigenous Vedda Community to promote sustainable utilization of forest resources by Indigenous People and document their traditional knowledge, values and practices.	Deterioration of IK knowledge reversed by convincing the value among young and middle aged communities. Working with indigenous communities requires a great degree of tact and flexibility to develop mutual understanding, acceptance and trust. Sustainable utilization of forest resources was promoted as an income generation avenue compared to the traditional method of swapping of items and services.	http://www.gefsgpsl.org/ Uploads/ Local%20Action-Global%20Thinking. Voices%20from%20 the% 20Field.pdf Local Action: Global Thinking Voices from the Field Personal communications with Dambane Eththo, Mrs Shireen Samarasuriya, Prof S P Nissanka, Mrs Dodanwala.
Preserving the Traditional Craft of Ola Leaf Inscription Production to revive Palm leaf inscribing, the oldest mediums of writing in South and Southeast Asian countries i.e. 'Tripitaka' for teachings of the Buddha, 'Veda Poth' (medical manuscripts) for physicians etched prescriptions to conserve and preserve for future generations.	Preserved the rich traditional knowledge base in Sri Lanka as an avenue for transmission to the next generation. Handicraft production utilizing leftover palm leaf parts created direct and indirect self-employment for women in low income rural families besides serve as a source for local medicine and Buddhist teachings.	http://www.gefsgpsl.org/Uploads/25 Year Communities in Action: Environment Conservation through People's Efforts, Sri Lanka Personal communications with Devanarayana, Herath of Narammala, Zaki Alif, Gnanasekaram.

Community project	Project outcomes in relation to IK in	Reference
Reviving traditional farming to bring together the knowledge holders of traditional farming, customs, rituals, food preparation for recognition and empowering to improve quality of life.	Recognized indigenous farming, medicine, astronomy and food preparation knowledge holders. Evaluated the shared experiences on in situ crop variety and soil conservation and traditional pest control methods and practices.	http://www.gefsgpsl.org/Uploads/ People for Conservation: Experience from Sri Lanka Personal communications with Ranjith de Silva, Attanayake of Badulla, Karunatilake Mohotti of Matara, Upawansa of Nawalapitiya.
Judicious Land use		
Sloping Barren Lands Converted to Sustainable Home Gardens to halt further land degradation and to improve livelihood sustainability of the settlers improving soil conservation with construction of terraces, tree planting, conserving small streams, practicing organic farming, improving the economic status of women by providing them with self- employment opportunities.	Converted the abandoned grasslands and sloping terrain into agro-forests, home gardens and organic farms with native soil conservation measures to gain economic benefits. Increased water availability in the area was evident. Establishment of small groups was vital in ensuring continuous community participation.	http://www.gefsgpsl.org/Uploads/25 Year Communities in Action: Environment Conservation through People's Efforts, Sri Lanka Personal communications with Dr M U A Tennakoon, Prof C M Maddumabandara, Dr Ray Wijewardena.

Community project	Project outcomes in relation to IK in	Reference
Community based village reserve protection to minimize over dependence of forest reserves for continued chena cultivation.	Awareness on environmental hazards due to deforestation was convinced. Introduction of viable agro forestry and home gardens were alternate options for villagers to refrain from the over use of forest reserves. Local communities are adequately sustained by homestead income sources.	http://www.gefsgpsl.org/ Uploads/ Local Action: Global Thinking Voices from the Field Personal communications with Dambane Eththo, Prof Nissanka, Dr M U A Tennakoon.
Climate change		
Improved rain water harvesting in home gardens for drought resilience for the farmer community to improve the livelihood status through adapting to climate change related droughts by rain water harvesting and improved water management practices including rehabilitation of the village tank, construction of traditional water ponds (Pathaha) within farm plots, establishing soil and water conservation practices in http://www.gefsgpsl. org/ Uploads/25 Year Communities in Action: Environment Conservation through.	Home gardens; introducing traditional crop species that are adaptable to drought People's Efforts, Sri Lanka Personal communications with Dr N Punyawardena, Shireen Samarasuriya, Prof S P Nissanka,	Rainwater ponds are ideal solutions for improving water security for small scale agriculture in the dry zone as stored water helps in recharging the ground water sources. The water supply from ponds and rehabilitated and expanded tank assisted the poverty stricken community to improve their livelihood conditions. Utilization of traditional seed and planting materials were reverted to the communities by convincing of their value under future climate change scenario Tharuka Dissanayeke, Sampath Ariyasena of Passara, Upawansa of Nawalapitiya.

IK in evaluation more generally

The value of IK to more general level evaluations (e.g. not of IK or of agriculture) undertaken in these communities also needs to be noted. As IK infuses people's cultural practices with animals and land, these practices may not be seen as being directly relevant to the evaluation of, for example, social and ecosystem services, but environmental evaluation methodologies understand that people are closely linked to a great extent with the products of their environments. On Veddah communities, Mrs Shireen, Prof Nissanka and Mrs Dodanwala vouched for their mutual understanding within the community, respect, acceptance and trust imposed on the leader, various multi benefits and ecosystem services to the own community, neighbors and country through sustainable utilization of forest resources. Forest harvest as an IK practice proved not only as an income generation avenue but also as a dependence for nutrition and medicine. Veddahs still continue to offer wild Bee honey to Dalada temple, the prime religious place of the country annually as a symbol of sustainability.

With my personal experience being exposed to Veddahs in particular and miscellaneous local people and communities in distant rural villages in the country during involvements in research and community-based projects also qualifies their capacity of IK resources to work, and share experiences for the betterment of the community. Therefore, it should be clear that IK has immense potential to infuse all evaluative efforts within these communities using appropriate indicators and measures. On the other hand, it could be well evaluated that as opposed to the rehabilitation of a village tank in a village, construction of a traditional water pond (***Pathaha***) within farm plots provides ***in situ*** merits in capturing rainwater, conservation of moisture and improvement of micro-environments facilitating agro ecosystems, strengthening faunal and floral biodiversity, and all in all, livelihood benefits through enriched crop production, additional income, food security,

sustenance on quality, tasty and nutritious food and medicine locally. These were evident when interviewing individuals in such communities as well as through formal feedback systems by the Community Based Organizations (CBOs) as implementers.

Constraints

An exploration of IK practices in the country revealed that over the past two decades, academia and development institutions have shown an increasing interest in the role of IK in development processes. Participatory approaches have led to possible exploitation, as IK has been recorded, IK databases have been developed, and IK-based systems and practices for sustainable development harnessed (Helvetas, 2001; Mohotti, 2002; Ulluwishewa & Ranasinghe, 1996). Shireen Samarasuriya reminded of the assignment of drafting the IK policy by GEF SGP of UNDP Sri Lanka and the Ministry of Environment and Natural Resources many years ago still not been implemented through Cabinet approvals. However, when the document was shared among the Asian countries, Malaysia was most interested in it as many facets were recognized for mutual benefits.

In parallel, many IK systems are known to be at the risk of extinction due to rapidly changing natural environments. Fast marching economic, political and cultural changes and the intrusion of foreign technologies, and development concepts in agriculture, human and animal health care, and food preparation has put IK at risk (Anon, 2000 and 2002; Mohotti, 2002; Ulluwishewa & Ranasinghe, 1996). This includes newly-improved crop varieties and breeds, synthetic agrochemicals, preservatives and additives, supporting facilities consuming energy, fuel and man power such as irrigation, pest control treatments, and ware house storage.

Despite rich and profound IK collections in the country, the eventual cessation of the use of IK in the agriculture and food sectors was

foreseeable as it has happened in other geographic regions. The following factors should be recognized as risks for IK (Anon, 2000 and 2002; Mohotti, 2002).

- Alternate job opportunities promoted under the developed and westernized culture,
- Out migration of rural communities for education, employment and business etc.,
- Free education and the development of open economy systems, and
- Advertisements in the media that present non-IK products as 'authentic' and thus undermine businesses being developed around IK products.

These have also led to create a backward movement in respecting, utilizing and promoting IK materials in development processes besides the potentials and capacities of IK processes.

Recommendations

Agriculture and water have direct impacts on food security and other emmerging challenges in the world in mitigating climate change, food scarcity and hunger. A detailed analysis of the use of IK in crop production, animal husbandry, irrigation and food preservation in the Sri Lankan context was therefore undertaken here. This recognized the potential of IK processes and methods to enhance production in the country's agriculture and food sector. A few best practices and examples of utilizing IK practices by selected communities envisaged economic merits to the communities, global environmental social issues such as climate change, labour scarcity, social disintegration, deforestation etc. Hence, in order to help integrate IK into the development processes in the country, steps could be taken to further assist local communities and institutions.

As evaluation of IK practices, materials, products and people was seen to be poor by either the same communities or by a third party, it is essential to deploy such evaluation processes adopted in other countries in South Asia and Africa. In this connection, Indigenous Knowledge Resource Centres at regional and national level should be activated for better networking. Further, persons and Institutions inclusive of astrologists, religious leaders and scientists should be involved in the process of testing, evaluating and improving 'best practices' of IK. This would shed more light on the possibilities for measuring the effectiveness of the indigenous practices in agriculture. In achieving the targets, facilitation and strengthening of IK Programs in Sri Lanka could also be achieved through approaches like community-to-community exchanges (C2C) within country and / or in the South Asian region (https://www.researchgate.net/publication/262257697).

Indigenous or culturally relevant learning processes, evaluation methods / participatory research methods or innovative evaluation methods are to be reviewed to identify unique paradigms, and world / region views and to disseminate approaches, methodologies and tools applicable to South Asia. There is enormous potential for innovation and commercialization of IK materials and processes. These can be promoted through the capture, storage and dissemination of IK for preservation and for use by the future generations – done in collaboration with the holders / owners of IK. Eco tourism, natural food, medicinal treatments, value added and traditional markets are some them to harness for better developmental processes.

Therefore, policy making institutions and non-governmental organizations shall first attempt to formulate national policies to safe guard the rich IK in Asia; the best example from Malaysia being implemented on ground while the Sri Lankan version yet to be considered by the Parliament for years. One step ahead, Sri Lanka should work with needy communities to assure benefits

from IK systems to show case additional success stories where examples could be evaluated with SDG indicators. , Other avenues recognized are: promoting cost-effective and dissemination of IK in an attractive manner, create easily accessible IK information systems using ICT, promoting integration of IK into formal and non-formal training, education and developmental processes, provide a platform for advocacy and to get benefits from IK systems to the poor (Anon, 2008; http://www.gefsgpsl.org, https://statistics.fibl.org; Mohotti, 2002).

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Chapter Seven

Evaluation and Vulnerability in Disaster Prone Areas in Bangladesh

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Introduction

With increasing population growth on earth, natural disasters have continued to take a heavy toll and, as a result, the well-being and safety of people, communities, and countries as a whole are severely impacted. Since the mid 1990s, more than 1.5 billion people have been affected by natural disasters in various ways, with women, children and people in vulnerable situations affected disproportionately. During the period 2005-2015, natural disasters have resulted in more than 0.7 million deaths, 1.4 million people being seriously injured and approximately 23 million people no longer having homes. In addition, between 2008 and 2012, 144 million people were displaced by natural disasters (UNISDR, 2015). Natural disasters, many of which are accelerated due to climate change, have increased in frequency and intensity over the years.

It is not just natural disasters that create mayhem, social disasters such as industrial accidents bring their own devastations to millions of people around the world. Both kinds of disasters are compounded by the various vulnerabilities faced by those who are often most negatively affected; people living particularly in the South Asian region. Vulnerabilities determined by various factors including physical, social, economic, and environmental or processes, are the conditions which increase the susceptibility of a community to the impact of hazards as reported by the United Nations International Strategy for Disaster Reduction, 2002. Vulnerabilities can be examined by dividing them into four main categories; (1) physical infrastructure ones, such as housing, electricity or road networks; (2) social factors such as the community's education, skills, engagement in social association, and social capital, (3) economic factors such as income levels and livelihood strategies, and (4) environmental factors. A communities' vulnerability to natural or social disasters can be influenced by one or more of these factors. Globally, natural and social disasters are devastating to humans, animals, and the environment, and in

places that also have significant vulnerabilities, thwart progress towards sustainable development.

Natural and social disasters in Bangladesh are common, with millions of people living in disaster prone areas that exhibit various kinds of physical, social, economic, and environmental vulnerabilities. Reaching these communities with relief operations in the aftermath of any disaster, identifying the most susceptible groups within those areas, and implementing suitable interventions present various difficulties for any relief effort, whether implemented by governments or non-profits. Evaluating the effectiveness of these interventions brings its own unique challenges.

Purpose

The paper explores the evaluation processes and findings of several scientific research and development projects in Bangladesh, mainly focusing on those that occur in rural areas. Using a mixed methods approach particularly the social inquiry approach, the authors identify the strengths and weaknesses of these evaluations in relation to the communities' social, cultural, and political norms. Then, based on this analytical framework, the authors offer insights and recommendations for evaluating disaster relief and mitigation interventions in Bangladesh. These insights and recommendations are described in-depth, which then allows for consideration of their wider application outside of Bangladesh.

Natural Hazards and Vulnerability Threats in Bangladesh

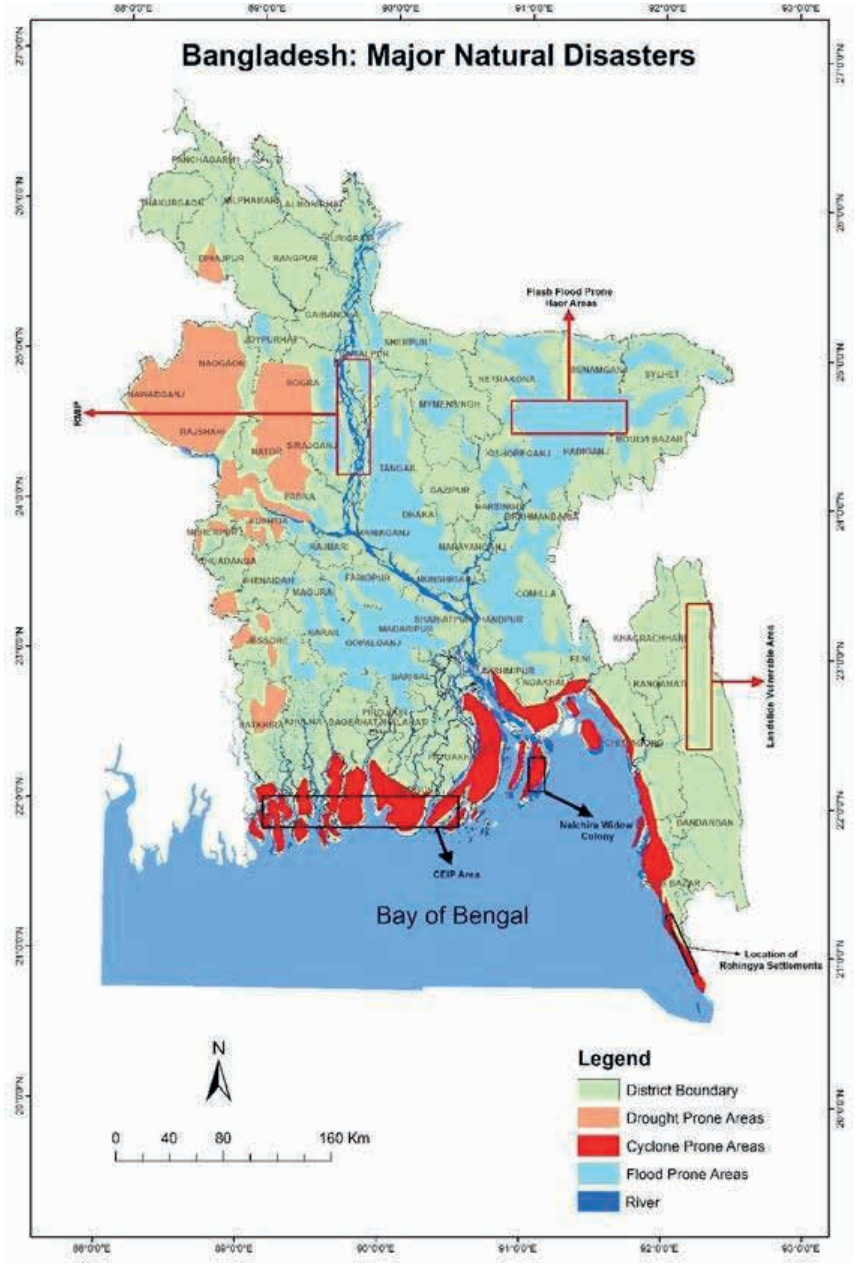
Globally, Bangladesh ranks fifth in terms of having the highest disaster risks (Rahman et al., 2016; Shaw et al., 2013). Among 173 countries, the Bangladesh Bureau of Statistics ranks Bangladesh as the sixth most natural disaster prone (BBS, 2016) country. Natural

disasters that predominantly affect the country are floods with riverbank erosion, cyclones, and droughts (Figure 1). This section describes some of the most common kinds of natural disasters prevalent in Bangladesh.

Flooding is a common phenomenon that, on average, affects 30% of the country. In raw numbers, this means that typically every year at least 2 million people experience floods. In extreme years, such as in 1988, 1998, 2004 and 2007 flooding negatively affected nearly 70% of the country. In 2017, nearly 8 million people experienced severe flash flooding incidence in the north-eastern *haor* of Bangladesh (Sumiya et al., 2019). It is not just the rural or peri-urban areas that are affected; a significant part of the total population of two big cities (Dhaka and Chattogram) is highly vulnerable to severe urban flooding.

Severe cyclones with storm surges frequently impact Bangladesh's low-lying coastal region bringing waves that often surge in excess of ten meters in height. Super cyclones such as Sidr (1970) and Aila (1991) caused millions of deaths and massive damage to lives and properties. The aftermath of heavy rains brought by cyclones creates massive problems. Riverbank soil erosion is one such problem, with thousands of households experiencing involuntary displacement yearly. The majority of slum dwellers in large urban and metropolitan towns and cities are victims of soil erosion due to the heavy rains, while cyclones claim other victims who reside in settlements in hilly areas (18% of the total area of the country) which are particularly vulnerable to landslides. For example, a recent (2017) landslide disaster caused the death of 160 people in the Chittagong Hill Tracts (CHTs). The ongoing erosions and flooding contribute to increasing poverty in these hardest hit disaster-prone areas (Zaman et al. 2019).

Figure 1: Major Natural Disaster Prone Areas in Bangladesh



Bangladesh is located in a tectonically active region. Some of Bangladesh's cities (e.g. Dhaka, Chattogram, Sylhet) are at risk of massive destruction by earthquakes from nearby seismic faults. The lack of effective initiatives of the concerned agencies to promote safe building guidelines, and the local practice of ignoring the National Building Code (BNBC) has made millions of city dwellers vulnerable to earthquake destruction in these cities (APN, 2017). Weak construction and non-compliance with building regulations lead to the frequent collapse of buildings in Bangladesh when earthquakes occur. In 2013, the collapse of the Rana Plaza with garment factories caused more than a thousand deaths of garment workers with another several thousand seriously injured.

Two additional national disasters are lightning[1] and water contaminated by arsenic. The Bangladesh Ministry of Disaster Management and Relief (MoDMR) has recently declared lightning as a hazard in Bangladesh. Increasing arsenic contamination of groundwater in Bangladesh has resulted in seventy-five million people at risk and 24 million potentially exposed to arsenic contamination. In the south-western part of Bangladesh, 61 of 64 districts are seriously affected by arsenic contamination of drinking water (Khatun, 2003). In addition to the extensive vulnerabilities to natural hazards, human-induced hazard risks are increasing at an alarming rate in Bangladesh. Industrial accidents occur regularly. Many chemical factories and warehouses are located in residential areas, making densely built urban areas highly vulnerable to toxic chemicals and chemical explosions. On average, 21 people die in Bangladesh due to toxic chemicals each month (BFSCD, 2016). Every year, major man-made fires take place causing huge loss of lives and properties. From 2005 to 2015, there were 1,765 fire-related deaths from nearly 130,000 fire incidents. In 2016, 12,880 fire incidences were reported that caused damage at a cost of more than 10 million USD (BFSCD, 2016).

1. Deaths caused by lightning often occur during the pre-monsoon season in rural areas where people work outside the home. People living in the haor areas of the north-eastern Bangladesh are highly vulnerable to lightning disaster.

The natural hazards and social hazards, combined with a variety of vulnerability factors, bring major challenges to the country's human development, poverty reduction and economic growth. Thus, the poorest, most marginalized and vulnerable groups are the hardest impacted by the kinds of disasters described above (MoDMR, 2017). Bangladesh struggles to address the challenges of these disaster risks and vulnerabilities. While various development interventions take place, and understanding what effective and efficient interventions are is critical, the evaluative processes used to gain that knowledge are poorly done.

Vulnerabilities and Evaluation Process in Bangladesh

Securing sustainable human development is a prime goal of UN listed countries, while the ultimate target before the nations is to achieve the sustainable development goals (SDGs). Balanced development targeting improvement of social aspects essentially requires the identification and justified evaluation of the intrinsic vulnerabilities of communities living in different remotest parts and effective interventions. It is also imperative to evaluate post-intervention impacts. Various methodological applications have been made in different parts of the world in these evaluations. Quantitative approaches were extensively practiced in assessing the social impact of any intervention, evaluating the effectiveness of any project or evaluating the vulnerability of a household or community in the decade of 1960s through the early 1980s. From the late 1980s mixed approaches (quantitative and qualitative) were implemented, while since early 2000 qualitative approaches have become more dominant in evaluating the household as well as the community. The introduction of participatory rural appraisals (PRA) in the 1990s in rural evaluation is one of the remarkable milestones. In many cases, especially for evaluating communities' vulnerability as well as the need for appropriate mitigation

measures, qualitative approaches enable more insight into the unique cultural and social practices and values of communities. In evaluating the social parameters of different communities these practices and values are the vitals that are difficult to explore or express in-depth through quantitative methods. Nowadays intensive evaluations are done where qualitative analysis is inevitable.

The methodologies for qualitative analysis also need to be customized according to the spatial-cultural context of the community and purpose of the study. The evaluation of Social Impact Assessment (SIA) and Environmental Impact Assessment (EIA) systems in developing countries, more specifically in south Asia is different than that of the developed countries (Wood, 2003; Momtaz and Kabir, 2013; Mathur 2016). SIA evaluation originated in the USA in 1969 and requires social issues to be considered as part of the EIA. On the other hand SIA in India and elsewhere in Asia has emerged largely in response to farmer protests against development projects that often put them in worse off conditions than before (Vanclay and Esteves, 2011; Finsterbusch and Freudenburg, 2002; Mathur, 2013). Obviously the methodology for evaluation of SIA and EIA will vary among the developed and developing countries. Certainly Asia, with a high-density population, limited resources, social diversity but some unique cultural characteristics, has certainly developed some unique methodologies. For example, the methodology for vulnerability analysis of a disaster-prone area in Bangladesh is unique. It is universal to collect data from households selected through various sampling methods to get representative data from the targeted community. Considering each household as independent and mutually exclusive may be applicable in urban areas but in the context of rural Bangladesh even households identified as nuclear or independent by the standard of universal definition may not be mutually exclusive but inclusive. Even if they are identified as economically independent these households share some common

properties, and thought processes, and their behaviour is dictated by a common invisible social bond. This bond is also related to the social status of the household in the community. From research experiences in different disaster-prone regions in Bangladesh, it is explicit that no single methodological approach is sufficient particularly a quantitative approach. For example, in the case of vulnerability assessment in coastal areas, *haor* areas or landslide-prone hilly areas, participatory rural appraisals, especially participant observation, focus group discussions, and field observations would be effective in exploring the intrinsic stories of the local communities (see below, case study 3). Both social science and natural/earth science research in Bangladesh often apply PRA tools, while hard science like engineering and pure science methodologies are typically quantitative in nature. In the case of engineering interventions as part of structural mitigation measures in different disaster-prone areas (e.g. construction of cyclone or flood shelters, embankment, polder etc.), local communities were seldom consulted in the past. As a result, in spite of extensive structural interventions in the rural areas in Bangladesh, the goal of human development has rarely been achieved. However, gradually even in engineering interventions, the research focus has slowly begun to emphasize the importance of public consultation. In the case of large development projects (e.g. RMIP, CEIP, and Padma Bride etc.) Funded by donors, social assessment is the prime focus. The next section provides a case study of one such initiative, followed by other illustrative case studies.

Case Study 1. Intervention to Address Riverbank Erosion Induced Vulnerabilities

River Management Improvement Program (RMIP)

Background of the Program

Flooding and erosion of land along the major river systems are endemic in Bangladesh and result in the displacement of hundreds of thousands of people. This displacement, and the destruction of homes and assets that comes with it, significantly contributes to a devastating poverty cycle (Halli, 1991 and Rogge, 1991). In response to flooding and riverbank erosion in high-risk areas, the Bangladesh Water Development Board (BWDB) has constructed flood control embankments and various other kinds of preventative infrastructures. However, many of these preventative structures no longer function.

In the 1960s, the BWDB built a preventative structure, Brahmaputra Right Embankment (BRE), which structured provided a 180-km long flood protection embankment. However, by 2014, only 61 km of it remained which provided any kind of protection. To address this, the BWDB designed a very ambitious project entitled River *Management Improvement Program (RMIP).* While 180 km flood protection embankment needed to be reconstructed, the first phase only prioritized 50 km. The RMIP's goal was to stop a vicious cycle of continuous riverbank erosion that led to the continuous influx of riverbank erosion victims in the area. Its specific objectives were to (1) protect productive floodplain land alongside the western bank of the Jamuna River from flooding, (2) secure the embankment

against riverbank erosion, and (3) improve disaster forecasting and preparedness based on social assessment to avoid and/or reduce future risks and enhance the economic and social well-being of the people in the floodplain (Zaman et al. 2019). Resettlement and rehabilitation of the project affected people was one of the major components of the project as part of the safeguarding policy of the World Bank. In response to that the project management team labeled their approach as a "development- oriented" resettlement program as it supported development through infrastructure and livelihood assistance.

Design and Implementation

In order to protect the productive floodplain land alongside the western bank of the Jamuna River from flooding (project objective 1), the project aimed to stabilize the embankment to prevent erosion, constructed a road with proper drainage, and erected a bridge to connect various areas, thus protecting the floodplain land yet allowing for people to still commute and live in the area. The project management team first needed to relocate the people living in that area. The affected people were offered multiple options for resettlement, including project-sponsored sites with civic amenities (water supply, sanitation, electricity, etc.)

Evaluation Methodology

Social Impact Assessment

Social impact assessment was an integral part of the project, drawing on qualitative and quantitative data, and both primary and secondary sources. The assessment was conducted in the design phase and therefore RMIP appointed experienced safeguard specialists and evaluators in conducting the study. Both qualitative and quantitative data were collected through field surveys, while quantitative data were gathered through census survey (from

each household located on an embankment) in order to measure the actual impact of the project. Socio-economic survey was also carried out through a semi-structured questionnaire. In addition, qualitative data were also collected from households located on both sides of the embankment (riverside and countryside) through focus group discussions.

Household Survey: The Invisible Beneficiaries

As mentioned above, all the households staying on the embankment with in 50 km (priority area of the project) were surveyed in order to assess the direct impacts of the intervention. Questions (administered in the local language) that were mainly asked in the survey to identify the exact impacts of the households included types of structures and materials to be affected, area of the house, number of trees to be cut down, number of livestock ownership etc. In most cases, the household heads were interviewed. However, once all data were collected, early analysis identified the consistent lack of women's voices or identification of women as property owners. While not identifying women as the rightful landowners reflects a common social practice in Bangladesh, these data also provide a false picture of those who are negatively affected by river bank erosion. For example, if women own the property legally through inheritance, it is usually considered as property of the men.

Therefore, to collect that information specific questions or some other mechanisms would need to be followed to get the real facts about the property ownership. The property or assets even received as dowry from the family of a bride/woman is considered as property of groom's/man's family, even sometimes as that of the extended family, and certainly owned by males. Many of the households are run by female members in absence of male heads but did not identify as female headed because of social taboos. Even earning of female members, mainly unmarried daughters was not recognized

despite the family surviving-on the daughter's income (Islam and Khatun 2019). The women responded in a similar manner, having living under an invisible control of social pressure and using common resources provided or controlled by the powered group they responded similar way. It is not only in negative way but also part of social system; people are interdependent in terms of social relation also. These facts suggest that social norms and practices need to be understood very critically and keep in cognition by the researcher in evaluating the women empowerment through assessing the possession of assets or resources by gender.

The landless people living on the embankment identified themselves as resident of some villages/unions which no longer exist, having been washed away by the river. However, they still identify themselves as the inhabitants of a virtual village/union. This is the way through which they try to uphold their proud identity and a virtual bondage with the villagers and community, but not a destitute. This identification has some additional meaning of assuring the status of a voter to participate in the socio-political decision-making process as well as claiming any kind of benefit, like relief allocated for that geographical identity. The land law of riverine Bangladesh (which may be similar to other Asian countries), and the formation of *charland* (island) in the river bed within 25 years of erosion can be claimed those who have lost their lands, further facilitating the process of virtual identity. The land losers continue paying tax for the land with the hope of having the ownership within the stipulated time (Islam and Khatun, 2019). Therefore, in evaluating the vulnerability of this community, the unique identity of these people needs to be assessed very carefully. They may or may not be recognized by the local administration for extending the safety net programs. This situation is unique only for river bank erosion victims but not for other people of Bangladesh. Obviously with the knowledge of the background factors and processes of their virtual identity would bring positive result for them.

In RMIP, public consultations conducted were also dominated by the influential people where the weaker groups could not raise their voices. Not only economically weaker groups but many others did not come forward with their opinions being restricted by their inherent social values. Only in the FGDs, the group could open up a bit but power play, feelings of insecurity, and other social taboos restricted them from making any suggestions. The FGDs, however, turned out to be successful in establishing personal contacts with smaller groups. Some selected case studies also aided in the collection of in-depth information. However, special precaution needs to be taken in selecting these cases. In the case of RMIP, it can be concluded that evaluation methods that need to be emphasized in development projects to assess vulnerabilities might include

- Social Impact Assessment (SIA) integrating local wisdom
- Focus Group Discussions (FGDs)
- Open/Public Consultation Meetings (OCM/PCM)
- Key Informant Interviews (KIIs)
- Case Studies

The addendum to this case study provides a further examination of the vulnerability of female-led households.

Case Study 2.
Nalchira Widow Colony

After the cyclone of 1985 the Swiss Red Cross (SRC) provided funds to BDRCS to rehabilitate the landless and poorest of the poor families of the Hatiya and Nijhumdwip islands of Noakhali District. Thirteen colonies were established and formed nuclear settlements around excavated ponds. With the desire by the donor to pay special attention to the most vulnerable group, the women Nalchira Widow Colony, an outcome of the special attention given to the disaster stricken female headed households of the area. This colony was established on BDRCS owned lands in the northeastern part of Hatiya and rehabilitated 32 households headed by widowed or destitute women and named as Nalchira Widow Colony (Khatun, 2000). However, a majority of the heads are deserted by husband. Though destitute women were allowed to be member of the colony, this was particulalry named as widow colony with silent understanding that women can own the house only if she has to take care of their childrenand were widows.

Since its establishment this colony has been facing serious problems of riverbank erosion and was washed away in 1998 in the Meghna River, similar to other parts of northern Hatiya. With the help of the Japanese Red Cross Society (JRCS) the colony was shifted to Oskhali in late 1998 within the mainland of Hatiya on a BDRCS purchased land and households started settling in late 1999. The colony accommodated 29 families and was named as 'Oskhali Widow Colony". The Oskhali colony is located within the mainland in between the upazila main road and a village road but no direct access road to the colony. The inhabitants have to walk through the agriculture land existing between the colony and both the roads. It is common taboo in the locality that if a widow woman walks on the agriculture land the production of that will be negatively affected (Khatun, 2004). Local people did not like the establishment

of widow colony in their area. They identified establishing as degrading to the social status of the neighbourhood. This problem was not realized while designing the project. But through an evaluation in 2000, it was decided that BDRCS would buy some extra land to provide road network to the colony from the main road. Here very name 'widow' created the problem within society along with not having access road. Therefore a colony should not have been named after the widows.

BDRC built the house for the inhabitants by keeping about one feet gap between the floor and wall with the logic that the inhabitants would fill this gap as part of participation process as desired by the sponsor. That created impediments to move to these houses by the destitute and vulnerable women and meant they could not ultimately live in the house for long time. With the presence of numbers of pre-school children in the colony and their mothers had to go out for their livelihood earning, BDRC was planning to facilitate in establishing a preschool cum community room for the inhabitants in a vacant land at the edge of the colony area. But through community consultation it came out that they had needed a graveyard rather than any other infrastructure. They wanted to assured a safe place for themselves after their death. It is to be mentioned here that there was no public graveyard in the locality. Usually the destitute households remained attached to solvent household as permanent labour and get support from the house lords. As these households were not attached to any land owners any more for their survival, the land owners did not allow them to be buried on their land even it was at edge of the riverbank.

However, future interventions to address any vulnerable groups (widow vulnerable women in the case of Nalchira) should not introduce any socially unacceptable measures that might trigger additional vulnerabilities to the concerned. In this regard, the following methods might be effective for the future evaluation process.

- Participatory approach (e.g. participant observation) integrating local norms/practices that are socially acceptable must be emphasized to rightfully evaluate the vulnerable groups and undertake interventions accordingly.
- Precautions need to be adopted in using any jargon or word to define or narrate any activities or social characters. It should not only be the translation of some alien words but should be screened through social norms and effectiveness.
- Community/public consultation.

Case Study 3. The Coastal Embankment Improvement Programme (CEIP)

Project Background

Coastal lands are in the process of being constantly formed by the rivers which crisscross them, bringing sediment from the inland, and by various marine, estuary and coastal processes which continuously shift, sort and modify the sediments. New alluvial land is continuously formed in this process. The area is subject to high tidal variation, monsoon flooding and tropical cyclones, the larger of which tend to damage the infrastructure and cause heavy loss of life and property. As the coastal region has land masses surrounded by rivers and estuaries, embankments were constructed by BWDB to protect them from monsoon flooding, cyclonic surges, tidal surge and salinity intrusion and since the 1960s to date 139 polders were constructed. Over the last 45-50 years, these Polders have been playing a vital role in safeguarding the region by increasing agricultural production, developing livelihood opportunities for the coastal people and mitigating environmental damages. Cyclone Sidr (2007) and Aila (2009) drastically damaged the infrastructure drastically in the coastal area and BWDB undertook many projects for constructing and reconstructing the earlier embankment over the last several decades. Coastal Embankment Improvement Project (CEIP) undertaken in 2007 is one of them, covering 17 polders. But in every monsoon time, most of the embankments got erased and damaged devastatingly due to tidal surge and river erosion. Sometimes it required to reshape and change the existing alignment of the embankment. In this case, BWDB needed to go for using private and public land for re-sectioning and rehabilitating the embankment (Twarowski 2019).

Process of Land Acquisition

According to the legal procedure, BWDB is supposed to acquire land for construction of any infrastructure and the land owners were entitled to get compensation for their land but it was not always possible to provide since the land was taken on emergency basis with mutual consultation and understanding with the land owners and other community people for protecting them from the tidal and cyclonic surges. Land Acquisition Procedures in Bangladesh are very time-consuming. Negative impact of this legal tool triggered to have some privately owned lands under the existing embankments and land acquisition compensation payments have not been completed. Due land acquisition process under law might not have been conducted or completed for all lands required for the construction and emergency retirement of embankments of the Polder.

Voluntary donation and dispossession of land is done by the land owners in situations of emergency, and incomplete acquisition. Cyclone surge accompanied by storm surge, wave surge, tidal bore, etc., often leads to breaching, erosion, or even engulfment by the sea or river of the sea-facing embankment thus causing saline water intrusion inside the polder area. In order to address emergency situations like these, BWDB had to construct a ring dyke, cross dam and retired embankment on an urgent basis while there was no scope for land acquisition due to shortage of available budget for compensation to the land owners. In situations like these, the affected people voluntarily donated/offered their lands for the construction of a ring dyke, cross dam, or retired embankment on urgent basis to save their lives and properties. These donations are usually made verbally with no official records and the landowners are never compensated. As a result, the legal land remains under personal ownership but practically the embankment is owned and maintained by BWDB (CEIP 2018a).

Evaluation Process

The donations are mostly done under the pressure of the community or socially influential people and the land owners are being deprived of receiving any compensation. Even when CEIP is ready to compensate the land records have no clarity, resulting in delays or no compensation at all . In many cases, the compensation is claimed by male members even when the land is owned by the female. To design the livelihood restoration program for the vulnerable people of the CEIP area a thorough evaluation has been done during internal and external monitoring of the project to identify the vulnerable people through both qualitative and quantitative methods (Twarowski, 2019). It is found that fishing is the principal occupation of the majority of people. However, the majority of the people from the fishing community run their life on informal/traditional credits as well as risks, resulting in prolonged vulnerability (CEIP 2018b). This type of credit system prevails all over Bangladesh for various occupational groups like fishermen, farmers, craftsmen and small traders not only with high interest but in most cases buying products or labours in advance at the cheapest price possible. With the long history of the social system, vulnerable people become prey to the money lenders very easily despite hundreds of NGOs providing credit to the poor people of the country. This type of credit system is not in record but is part of the social practice and has been carried on for generations in different parts of the country as some families have continued working as lenders and others as receivers. In addition to this, there are other social systems practiced within these families while some have changed over time. However, in evaluating vulnerabilities of the marginalized groups, the following methods/tools might be effective-

- In-depth assessment (qualitative approach) to identify invisible characteristics/ vulnerabilities of the unrecorded credit and associated social systems and dynamics
- Focus Group Discussions (FGDs)
- Participant Observation
- Open/Public Consultation Meeting (OCM/PCM)
- Environmental Impact Assessment (EIA)
- Quantitative approach (EIA based structural interventions)

Case Study 4. Vulnerabilities in Flash Flood Prone Areas – The Northeastern Haor Region

Background

As discussed above, among all disasters that occur regularly, flood is the most common and a slow on-set disaster causing widespread damages to the standing crops and infrastructure. At least four types of floods are evident in the country. Low-lying floodplains of northern, north-western and south-central parts of the country experience regular inundation. Around 11% of the total area of the country accounts for wetlands, while the north-eastern tectonic depression, locally known as *haor* basin, experiences flash flood in the pre-monsoon period, often in April and May. The *haor* region plays an extremely important role in meeting a significant demand for fish protein having a variety of fin fish including 143 indigenous and 12 exotic species with several species of freshwater prawns (BHWDB, 2012). Moreover, the area produces 16.5% of the total paddy crop and makes 6-8% GDP contribution of the country (BHWDB, 2012). The region accommodates ecologically very important freshwater swamp vegetation (widely known as *hijal* and *karach* trees). From the very beginning of human habitation in these areas, locals used to depend on fisheries, swamp forests and dry-season farming. In addition, the *haor* area maintains rare habitat for endemic waterfowls and supports a large number of migratory birds (Kabir and Amin, 2007). *Haors* with their unique hydro-ecological characteristics are large bowl-shaped floodplain depressions located in the north-eastern region of Bangladesh covering about 1.99 million ha (19,998 km2) of the area in six districts (Sylhet, Sunamganj, Netrokona, Kishoreganj, Habiganj and Moulvibazar) (CEGIS, 2012). A total of nearly 8 million people living in over 400 *haors* in six upazilas of the region are highly

vulnerable to sudden floods mainly due to excessive rainfall, while the *haor*-dwellers await for harvesting the standing paddy to support them throughout the year. Some local elites known as jalmahalders used to take lease of the wetlands for a particular period and used to exploit *haor* fisheries as much extent as possible while the fishermen could only be appointed as labourers.

However, the fate of the vulnerable communities in *haor* region often depends on the gamble of nature. In a short period of time, huge volume of rainwater passing through the rivers suddenly inundates the low-lying flood plain areas. It rises and falls rapidly, typically within a few hours or days (DMB, 2010; Brammer, 1990). Flash flood being extremely devastating destroys standing crops and other resources within short span of time resulting in great economic losses. The *haor* region experienced severe flash flooding events in the past. Very recently in 2017, the north-eastern region specifically the *haor* region was devastated by a catastrophic flash flood during the pre-monsoon season causing an intense damage affecting nearly 1 million households and damaging US $450 million worth of rice crops (Kamal et al. 2018). The *haor* people have to continuously struggle for maintaining their livelihoods and about half of the population is dependent on *haor* fisheries and agriculture (Sumon and Islam, 2013) who alongside fight against flash flood and erosion too.

Haor dwellers livelihoods are totally based on seasonality, while wetter season offers them to exploit fish resources and water-transports are only way of transportation. Dry-season fisheries become limited as *haor* areas shrink to small water bodies known as *beel*. Farming in the temporary *haor* land and grazing of cattle are dominant in winter season. The region lacks safe drinking water and needs water treatment facilities. Hardly NGO interventions exist in the region since there is risk of having no return from vulnerable people. Safeguarding the standing crops, captive fisheries, cattle, ducks and settlements of millions of vulnerable people depends on the breached embankments of the BWDB.

Evaluation Process

In the aftermath of a devastating flash flood, a huge humanitarian crisis (e.g. 2017 flash flood) prevails and concerned agencies are often blamed and punished. Embankment repair comes into the limelight and attention is given to the next year's flood protection. Infrastructural reconstruction and rehabilitation seldom follows with thorough proper evaluation methodology. Engineering approach is often emphasized in improvement of the embankment, which is never justified for its adequacy and efficiency. Therefore, the following years also experience the same incidence of flooding events. Local communities receive inadequate post-disaster relief in terms of seeds, food, etc. usually distributed arbitrarily. Rather, an unbiased need-based assessment aftermath a flood in the *haor* region is required to ensure sustainability. Rapid rural appraisals and participatory rural appraisal tools have been applied in evaluating the real scene of the rural contexts of the country for long. But identification of the actual vulnerable communities through a joint independent evaluation team in the *haor* region has never been carried out. *Haor* dwellers have been surviving in the adverse environmental condition using their local wisdom in terms of managing fisheries, farming local varieties of crops etc. In order to effectively address the most vulnerable groups, the following methods need to be emphasized.

- Qualitative approach (participatory rural appraisal tools, e.g. resource mapping, transact walk, social mapping, participant observation, focus group discussion etc.)
- Quantitative/engineering approach (e.g. need based assessment of structural intervention in haor region)
- Environmental Impact Assessment (EIA)

Case Study 5. Landslide and Vulnerabilities in Chittagong Hill Tracts (CHTs)

Background

The CHTs encompassing three hilly districts is a home to around 3 million people and it possesses a unique geographical and cultural landscape of Bangladesh (Rasul and Tripura, 2006; Khan, 2015). In CHTs, the terrain is mountainous and featured by rugged terrain with deep forests, lakes and waterfalls which gives it a diverse character from rest of Bangladesh. This extreme degree of variation in the hills are a function the interaction of different factors such as elevation, altitude, geologic and edaphic conditions, steepness and orientation of slopes, wind, precipitation, relief of the terrain etc. However, most of these are alluvial hills made of sand and soils, and a little bit of stone. These soils are of loose type but holds the hills together and large number of trees on these hills. In CHTs the hills are mainly characterized by the traditional cultivation practices of ethnic communities such as shifting cultivation (Hossain et al., 2019). Nowadays newer farming practices such as horticulture, vegetables and spices are replacing the traditional ones at an increasing rate. Traditionally, people used to access forest areas for the collection of different forest products and shifting cultivation (i.e. subsistence farming) following customary rules. Many of these rights have been lost with gradual increase of population and government control on forests and areas of selected landuses. Since 1980s, plain land people have been settled in the hilly areas and gradually the plain-landers tried to accommodate with adverse hill contexts. Number of migrants from plain lands being significantly increased over time struggle for employment and are bound to live on the vulnerable hill slopes.

However, CHTs is gradually becoming vulnerable due to landslides, since a large number of migrated population lives in the hill slopes. Landslides occurs every year in the hilly areas of Chattogram, CHTs and Cox's Bazar districts of Bangladesh (Ahmed et al., 2014). Two major landslides occurring in 2007 and 2017 brought disastrous situation by causing the death of people and destroying their properties in these districts. In June 2017, torrential monsoon rain (over 300 mm of rainfall in 24 hours) triggered floods and landslides in the CHTs of Bangladesh, India and Nepal. The occurrence of landslide disaster killed more than 900 people and directly or indirectly affected 41 million people. Many areas became inaccessible due to damage to roads, bridges, railways and airports (UNESCAP 2017). In Bangladesh, the districts of Bandarban, Chattogram, Rangamati, Khagrachari and Cox's Bazar suffered possibly from the destructive landslides in history. The disaster killed around 160 people, including 115 persons in Rangamati alone. The second-highest death toll of 127 deceased persons was recorded in 2007. The two districts of CHTs Bandarban and Rangamati were the worst victims of the disaster.

Reasons responsible for such landslide disaster include both natural and human induced. In fact, there are many factors that are responsible for turning environmental hazards to disaster in the long run including deforestation and degradation, soil erosion, changes in landse and land cover, disappearance of deep rooted vegetation, jhum cultivation, conflicts among resource users. In CHTs, most of the forestlands are becoming barren, covered with grass or with scattered trees, bamboos and weeds. Forest cover changes in the hill forests of Bangladesh are due to the conversion of large areas into non-forestlands (Hossain, 2016). Tree harvesting and shifting cultivation have caused degradation of the forest landscapes in CHTs (Mukul and Herbohn, 2016). In addition to landslide hazards, the CHTs suffer shortage of potable water, drought, and soil erosion. In both Chattogram and CHTs, the cutting of hills and the construction of houses by the people on

the slopes increased the chances of landslides and threatened the lives of those poor dwellers. Landslides appear to be a man-made disaster in the hilly areas particularly during the rainy season.

Evaluation Process and Interventions

Both structural and non-structural mitigation strategies based on scientific assessment of vulnerabilities are important for landside risk reduction in the CHTs. Structural measures are to be undertaken considering the safety measures, building codes and better drainage facilities. Structural solutions mainly composed of different types of retaining walls in order to stabilize the soil slopes. Since consturction of retaining walls is costly, retaining walls of affordable design with sustainable technology need to be selected. Other measures include stopping of deforestation and hill cutting, resettlement of the affected people, achieve vegetation coverage, adaptation of alternate livelihood and development of robust policy. The local communities should be made aware of landslides, their frequencies and their likely impacts on human lives. Warning systems relating to heavy rainfall can also be developed so that people themselves will be aware of probable landslides by just knowing the extent of precipitation of that area.

Only structural solutions sometimes appear to be temporary. In landslide disaster like other catastrophes, during the post disaster phase, some reconstruction and rehabilitation activities are carried out to immediately help a fraction of the victims or vulnerable groups. In the case of landslide victims of 2017, some people were sheltered temporarily by district administration although people later left for their previous locations. Critical infrastructure (e.g. road communication) that was disrupted was repaired to make lifestyles normal. Remarkable local and national level interventions were reported to be undertaken to identify the vulnerable groups and to permanently resettle them. But the real vulnerable groups could hardly be reached as it was reported that the landslide

vulnerable groups cannot be considered for resettlement due to land tenure issues. Therefore, there remains the risk of landslide hazards in the CHTs until true vulnerabilities are addressed through proper evaluation methods. The evaluation process that might be effectively applied to identify true vulnerabilities includes-

- Qualitative approach (participatory rural appraisal tools, e.g. social mapping, transact mapping, resource mapping, participant observation, focus group discussion, etc.)
- Quantitative/engineering approach (e.g. scientific research based structural intervention where applicable in CHTs)

Case Study 6. Mass Displacement and Vulnerabilities in Bangladesh

Background of the Displaced

Rohingya community from Mayanmar has been fleeing due to ethnic cleansing and has started living in Bangladesh illegally since 1978. The huge influx of Rohingyas took place moved in August 2017 and around 1.07 million Rohingya are now living in Bangladesh till 25th February, 2018 (ISCG 2018). They are living with uncertainties in 32 refugee camps in Ukhiya and Teknaf near Cox's Bazar, the largest refugee camp anywhere globally. Each camp has on average over 250,000 refugees. The camp life is slowly improving with much-needed access, infrastructure and basic amenities and supplies, including extensive healthcare support by local and international NGOs. Horrified stories are known by the world for their fleeing. Male members were shot and brutally killed by the Myanmar army and women were held and gang raped. The rest of the family members, women and children, ran for their lives, very traumatized and with injuries from gunshots and took 5 to 9 days to cross the border at Teknaf. The army indiscriminately tortured young men in the villages and targeted women during their raids. The family members had to witness such unspeakable atrocities. The trauma and horror still haunt them. These Rohingya refugees are vulnerable by themselves; on the other hand their presence is placing a huge threat on the host and nowadays the host community is facing vulnerabilities in all different ways. A recent study reported that 1 million Rohingyas are at severe health risk primarily due to serious air and water pollution and later by destroying forest resources and disposing wastes elsewhere (The Daily Star, 2019). Use of firewood as main fuel in small tents with no ventilation, high frequency of vehicular movement, proximity of drinking water points to latrines and absence of proper waste management.

Evaluation of Vulnerability

To evaluate the vulnerability of this community as well as the host community local cultural background needs to be known and considered while conducting any study. Many international organizations are working to help them out from trauma and vulnerabilities, should not use common strategies used for refugees in other parts of the world. Like any other area language is common barrier but the local host community can communicate as they have some common dialect like as any border area. Rohingyas are very conservative Muslims and would not talk to any male "outsiders." Rohingya women entirely clad fully from head to toes with only their eyes left uncovereds (niqab). This clearly distinguishes them from other local women. During a visit to the camp in response to a potential opportunity to earn the researchers were told that women don't work outside their homes and they would prefer to keep it that way. "Women should stay home," said a young married man. Despite ongoing efforts by NGOs, only a limited number of Rohingya women have opted for employment. Replace with taking the advantage of a similar dialect, the Rohingyas have been able to assimilate themselves with the host community easily and thus making the host community vulnerable socially, economically and politically (Idrish and Khatun 2017). However, in adopting effective interventions to address the vulnerabilities of the Rohingya and the host community, the following methods might be followed-

- Qualitative approach (Social Impact Assessment, e.g. in case of impacts evaluation on host communities, participatory tools- focus group discussion, participant observation, social mapping, key informant interviews, etc.)
- Quantitative approach (to estimate/evaluate impacts of influx on local economy, environment etc.

Concluding Remarks

Bangladesh is unlike any other South Asian nations mainly due to its geographical characteristics with high density of population and prevalence of a number of natural hazard risks spread all over the country. Increasing population pressure and its consequences on different sectors have always been challenge for the country. Integrating natural and human-induced disasters into the development goals is certainly a key-focus of the country now. Despite enormous population pressure and, high discrimination of resource distribution, rapid economic growth and social development are of central focus to the country. Practically, millions of people are living in different regions with vulnerabilities of various types. Coastal areas hosting nearly forty million people pose high risk of cyclonic disaster, while north-eastern 8 million haor dwellers are at severe risk of flash floods. Some three million people are at risk of landslide hazards in the CHTs, while millions of people in the large cities experience urban flooding and are vulnerable to earthquake hazards. Bangladesh is located in the extensive floodplain thus experiencing seasonal flooding every year and thus at least two million people vulnerable to seasonal inundation. Moreover, social hazards like fire, building collapses, chemical explosion and industrial accidents. are very common. The country is also suffering from socio-cultural and environmental degradation due to the recent mass displacement of the Rohingyas from Myanmar, while the refugees are vulnerable themselves. However, a significant number of development projects (CEIP, RMIP, etc.) have been implemented since 2000 to protect vulnerable communities at various disaster prone areas in Bangladesh, while evaluation process to address vulnerable groups in these projects used to follow different quantitative and qualitative methods. However, It is now evident that engineering intervention-dependent development in reduction of risks and vulnerabilities in different disaster-prone contexts of Bangladesh has not been successful in disaster risk reduction in

Bangladesh. Even, an unbiased selection of sites for appropriate structural measures is absent. However, identification of the real vulnerable groups from different natural disaster contexts requires an unbiased mixed methodological approach integrating local wisdom and unbiased selection of structural measures (in the case of engineering approach) to properly address vulnerable groups. On other hand, research and development projects, adequate time to assess the vulnerable groups is required, very often which is ignored. Evaluation process in the case of qualitative approach should consider the involvement of local investigators who have adequate knowledge of social norms, attitudes and practices. Finally, interventions/ development programs should be based on socially acceptable norms/practices that should not trigger additional vulnerabilities for the communities.

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Chapter Eight

Why Local Wisdom matters in a decolonized world

Meaning is socially, historically, and rhetorically constructed.
Clifford Geertz

Sonal Zaveri

This article argues for legitimizing the use of Local Wisdom in program design, interventions, and evaluation. Despite being situated in the context of South Asia, Local Wisdom provides a paradigm and world view that may be useful for evaluators, researchers and development professionals who are striving for transformation that is by and with the people most impacted by project activities and policies. There is an urgency to do so because of an increasing awareness that problems need local solutions that have better chances of acceptance, ownership, and sustainability. Related to that is a recognition that dominant worldviews have influenced the field of development and evaluation, mostly from the Global North, and may not have been the most relevant options to address the dynamic, contextual, and complex needs of people and communities in other parts of the world. There is no doubt that we are living in the era of the Anthropocene, where human with its disastrous footprint on our shared natural surroundings that threatens our human security (UNDP, 2022). The ensuing discussion on the evolving human-environment relationship has led to an inward reflection of our histories, and how they have contributed to the destruction of our way of life and our environments (Nandy, 2009). In fact, decolonization has spurred us—development practitioners and evaluators—to question our own practices and values and seek a more sustainable, owned alternative. This article focuses on shared reflections from South Asia, placing emphasis on what our communities value and whether we, as professionals from the region, have truly listened and taken cognizance of what we know, feel, and understand of our cultures and context. We explore what we have learned, how we can use Local Wisdom in our practice, and explain why this is the right 'fit'. The intention is not only to contribute to evaluative thought and practice in South Asia and the Global South but also to contribute to global evaluation field building, ensuring that we value voices from the Global South.

We argue for the use of Local Wisdom as a paradigm for development professionals and evaluators to frame the evaluative

process, arguing that it is the best way to make sense of the unique experiences of the world we live in, taking cognizance of our beliefs, values, and interactions. While *local* refers to context, *wisdom* suggests that communities have the decision-making power to channelize their energies to solve intractable problems. Local Wisdom suggests we change our perspective, and believe that there are opportunities for communities and people to be responsible for and seek individual solutions that are sustainable for *them*. Practically, this worldview ensures that people most affected by the problem are in charge of deciding what should be the focus of study, making decisions about who to involve and how, what questions to ask, how to interpret their findings, and collectively plan the next steps. This has implications for the evaluator who no longer is in the driver's seat, is no longer the expert but a facilitator that respectfully supports the communities as they solve problems and make decisions. Local Wisdom ensures that we unlock the dynamism existing in communities and people so that they can seize opportunities and be in charge of their change processes. Yet, such a paradigm that is so fair, just, and pertinent has not been widely used in the evaluation space and is nascent in South Asia. We explore the reasons for these challenges and then provide a blueprint to evaluators in the use of Local Wisdom knowing that evaluation is a powerful tool that can change the lives of people and the trajectory of activities, and influence the wider environment. Evaluators committed to social change that is transformative, meaningful, and makes a difference in people's lives will value situating evaluation practice in Local Wisdom. We evaluators from South Asia aim, through Local Wisdom, to rethink and reimagine a better way of doing our craft.

Contextualizing evaluation

The past decade has witnessed an increase in evaluation field building in South Asia with the proliferation of voluntary associations of evaluators, national and transnational, with many

skilled researchers and evaluators that understand the craft and are able to adapt methods and tools related to the context. In fact, South Asia has been a testing ground for evaluation research, approaches and methodologies benefiting both the theory and practice of evaluation (Chambers 1997; Earl et al., 2001; Hay 2010; Ramirez and Brodhead, 2013; Shiva Kumar, 2010). However, most of these methodologies and their theoretical underpinnings articulated in the Global North do not have roots in the Global South or the South Asian context (Carden, 2010).

South Asia is an amalgamation of myriad castes and sub-castes, classes, religions, ethnicities and sects that themselves intersect, so that each person's identity is a complex mix of any of these. A person can live comfortably with concentric, overlapping rings of communities that represent religion, sects, caste, language, territory and so on. People co-exist with a kaleidoscope of identities, a complex state of *being*, that is perhaps difficult to comprehend by those who are familiar with largely discrete population groups. Nandy[1] speaks of a normal person's "splintered self" as the *natural state* of being in India (and easily extrapolated to the cultures in South Asia, considering its shared culture was broken up territorially by the colonizers when they left in the mid-1900s). In day-to-day life, a person living in the region has multiple identities and allegiances and navigates diversity with ease. It therefore, makes sense to talk of micro-cultures, rather than a dominant or indigenous culture/s and to ponder how these micro-cultures with their own lived realities, one navigates through participation, engagement, and hearing voices from the ground. Although a deeper discussion on the context of cultural pluralism that exists in South Asian societies is beyond the purview of this article, it is evident that evaluation framing must be built on the foundations of people-centered approaches that embrace and celebrate this diversity of micro-cultures.

1. https://www.resetdoc.org/story/ashis-nandy-why-nationalism-and-secularism-failed-together/

Corporates, under their Corporate Social Responsibilities (CSRs), are a new audience that is emerging in evaluation and in some contexts (e.g., India)[2]. CSRs are becoming big players in social development and evaluation. From a business perspective, development problems are market-based and can be 'fixed'. The fact that many social problems such as poverty and inequities have persisted provides the greater impetus that solutions lie in the business arena rather than the development space. The knowledge base of development work in the region, accumulated over decades, including the growing field of evaluation, is however less familiar to those supporting CSR. The urgent need for hearing voices from the field or developing culturally and contextually relevant theories of change and methodologies, which is the current concern among evaluators in the region, may not be seen as critical in the CSR sector where spending the monies, tracking outputs, and completing audits may be the primary concern. This sector, however, needs to be included in discussions on local wisdom and evaluation as a social good, because of their growing clout in the development space.

We position Local Wisdom as a way of providing a theoretical framework that is rooted in the South Asian context and as a way to navigate the multiple intersecting micro-cultures that are part of daily life. The three pillars of Local Wisdom—Be with the People, Hear the People and Speak with/for the People—that we propose are the scaffolding on which methodologies, methods and tools can be field tested, adapted, and used. We recognize that many researchers, development practitioners, and evaluators in the region may be intuitively using the three pillars of Local Wisdom in their work and this article is an attempt to systematize the conceptual framework. There is an urgency to do so with the push for decolonization, and innovation and to encourage the next generation of young emerging evaluators to adopt conceptual framing that is South Asian and reflects its realities.

2. By law, a certain percentage of the profits of businesses are earmarked for social development projects.

Decolonizing our thoughts and practice

We use the framing of Local Wisdom as a mirror to critique some of our time-honored evaluative practices, which we consider to be egalitarian, but a sharper look indicates shades of colonization. For example, we measure what we value is an oft-used expression. But what do we mean by 'value'? Value means that something is of worth, deserving, and useful. The verb "to value" means to consider "something or someone to be important or beneficial, to have a high opinion of". It is important to distinguish value from values in the context of Local Wisdom. Values, though related to the concept of value, represent standards or principles of behavior, outlining what is important in life and therefore the actions that we take. Values may include honesty, integrity, dignity, inclusion and the like and they may change over time. Not all values are universally accepted by people and some are not equitable – for instance,in some communities, values dictate that girls' place is in the home. For this reason, we posit the discussion on Local Wisdom on what we value rather than the values of a community or people. What we value in Local Wisdom is communication, engagement, respecting lived realities and trust in people's decision-making and judgment. We also believe that Local Wisdom leads to value "creation", i.e., where the tangible, intangible, the human and the environment are intertwined to create new solutions and pathways of change. If COVID-19 has taught us one lesson, it is to value the extraordinary resilience of communities and the commitment of its front-line workers—their sacrifices to reach the last mile and to find local solutions, often in the absence of help from the government. Value "extraction" is what evaluators are familiar with, using existing activities and outputs, information and data to determine what the results are, usually for upward accountability. What we value is dependent on our worldviews.

Worldviews work in the background and we become acutely aware of them usually when confronted with an alternative worldview. As Amartya Sen outlines in his book *The Argumentative Indian* (2005), and paraphrased here: While the West celebrates its scientific priorities, we celebrate our *dialogic tradition* which, in turn, stems from our living in a pluralistic society. The pillars that hold up Local Wisdom – Be with the People, Hear with the People and Speak With/For the People – upholds this dialogic tradition.

Voice is a crucial component in the pursuit of social justice. Participation is merely an opportunity to capture multiple realities and voices from the ground up, but the problem lies in the recorded conversations and arguments that may be skewed and biased toward the worldviews and articulations of the dominant and more powerful viewpoint (Sen, 2005). A case in point is the oft-used phrase "pass the baton" to illustrate equitable participation, but a closer and nuanced understanding tells us that someone who has power (evaluator) *decides* to pass on the baton, implicitly accepting the hierarchical (and patriarchal) power of knowledge and expertise. But what if we believe that the baton is implicitly and explicitly *with* the community, in which case there is no question of "passing the baton". It is quite likely that the questions we ask and the solutions we find would be very different.

Patel and Bartlett (2009) use the case of a program to resettle pavement dwellers in Mumbai to point out that evaluation studies are merely "the tip of the iceberg". The World Bank evaluation of this resettlement program considered this project very successful, and its methodology participative; however, it failed to address a basic contributing factor—the many years of work by the Society for Promotion of Area Resource Centre (SPARC) in participation and empowerment with the pavement dwellers, wherein the resettlement was a mere milestone in a long journey of empowerment. In fact, the participation of the women for the evaluation was only tokenism and the true empowerment of

women was entirely missed out because of a lack of knowledge of the context and milieu of female subordination.

Praxis Institute for Participatory Practices (2015)[3] describes the experience of setting up a GLP – Ground-Level Panel--in India consisting of 15 members from diverse backgrounds living in poverty and experienced marginalization to deliberate on the High-Level Panel (HLP) of internationally renowned experts' recommendations on the SDGs. The GLP expertise was their lived reality of poverty and marginalization and they outlined how the conventional outcome goals of the SDGs were not achieved because "barrier goals" and "marginalization" was not addressed. Unless, "barrier goals" of inequities, lack of collectivization of those affected, lack of inclusive policy-making, and so on and "marginalization" due to caste, class, religion, disability and gender were not addressed, the outcome goals of food, shelter, water, health and education (as outlined in the SDGs) would not be achieved. The thought piece, *Community Participation can be Extractive: May we be mindful?*[4] interrogates why the GLP process remained an isolated event and was left by the wayside, once again reinforcing the hegemony of power and that someone decides to "pass the baton" and to withdraw it as well. This proved that the hegemony of patriarchy, power structures, and systematization of knowledge to favor the more powerful remained, ultimately, unchanged.

Power is a fluid concept and a discussion on decolonization must also ask uncomfortable questions to the colonized – how have one's own practices, perhaps inadvertently been colored by the colonizer's thought processes and framing? What power structures existed and continue to exist that may in fact have been reinforced in the process of colonization? Even those practicing evaluation as insiders or locals have often been educated in western pedagogies,

3. https://post2015voices.wordpress.com/2013/07/04/ground-level-panel-india/
4. https://civicus.org/thedatashift/blog/community-participation-can-extractive-may-mindful/

and so need to interrogate their framing of evaluation and strive to make it truly local. A "decolonization of the mind" is essential, otherwise one may recreate the discriminatory, elitist, and exclusionary systems that existed during colonization and continue to marginalize the most vulnerable. One of the tenets of colonization was the direct or indirect liquidation of the essential elements of the culture of the dominated people.[5] By doing so, colonized societies altered their cultural priorities and therefore it is time that we have a restoration and reconversion of mindsets to embrace one's context and cultures. But as Nandy (2009 p. 120) points out, the colonial experience cannot define a highly complex diverse India when it has a "tapestry of thousands of cultures and communities with their own real or imaginary pasts and distinctive ideas of the future. It is not possible to easily snuff out that diversity". If decolonizing is a Global North to South construct, then *debrahmanizing* is a locally rooted South Asian construct reflecting inequities of religion, caste, class, gender, patriarchy and privilege. It describes how upper caste, so to speak brahmins, dominate the narrative and sustain the many inequities existing in society.

Culturally grounded approaches: Landing on the Local Wisdom Approach

To be culturally appropriate is not a new understanding. Culture was recognized as critical to achieve development goals, and considered (but later dropped) as the fourth pillar (along with economic, environmental and social development) during the formulation of the SDGs. Even businesses that work in different parts of the world understand that there are different ways of doing business.

5. Speech by Ashish Nandy on "National Liberation and Culture", delivered on February 20, 1970 at Syracuse University.

Cultural responsiveness, cultural competence, culturally relevant, and cultural responsibility are some of the terms used to describe attention to culture. The American Evaluation Association (AEA) Statement on Cultural Competence in Evaluation (2011) states the importance of cultural responsiveness. Others such as Hopson (2009) have affirmed that cultural competence must address what is relevant to unique groups and communities. Similarly, Mathison (2004) states the value of an empathetic view and attention to context, and that evaluators must not have preconceptualizations and stereotypes while conducting evaluation.

To empathize with the local community underlies the Local Wisdom approach as well.

Indigenous approaches to evaluation are one example of demonstrating cultural competence (Chilisa, 2015, Cram, 2009), linking to the experiences of marginalization and minoritization. The United Nations[6] describes indigenous people as inheritors and practitioners of unique cultures who have retained social, cultural, economic and political characteristics that are distinct from the dominant societies in which they live. In the context of South Asia, there is no one dominant group that can be identified in all regions and in some South Asian contexts, indigenous is identified with tribes that live in remote areas with very unique cultures (Guha, 1999). In other contexts, indigenous is intertwined with that of sovereignty and the redistribution of resources by settlers and colonizers (Bowman et al., 2015; Cram, 2009; Shepherd, 2020). Definitions of what is 'indigenous' is highly contextual and in the South Asian context, very limiting, since non-indigenous people are equally ethnically diverse with their own micro-cultures.

Rather than contesting terms such as indigenous, culturally responsive and culturally relevant, we landed on the term "Local

6. UN (United Nations) (n.d.). Indigenous peoples at the UN [dedicated United Nations webpage]. Retrieved 4th October 2022 from https://www.un.org/development/desa/indigenouspeoples/about-us.html.

Wisdom" to include local people in all their diversity whether they reside in villages, in urban and peri-urban areas, in indigenous areas, in forest lands, mountainous regions or deserts. Local Wisdom celebrates, embraces, and integrates diversity and complexity in its evaluation approach, methodology, and tools. It ensures that we do not simplify the context in order to make evaluations manageable, use (or adapt) mechanistic tools rooted in linear, more uniform cultures, and search for outcomes that are discrete and countable with less attention to the many layers of change processes deeply rooted in societal historical structures. Evaluators, who are often outsiders, will evaluate without knowing the local idiom (even if they know the local language) or understanding the lived realities and use methods and tools dictated by funders and commissioners that are formulated in offices far removed from the village or town from where data is to be gathered, interpreted, and used.

Other parts of the Global South have experimented with non-Western approaches to development that celebrate community-driven social change. One such is the *Grandmother Project – Change through Culture* which discusses "culturally-grounded" methodologies that build on the traditional role of elders in the community, and promote a dialogical, consensus-building approach (www.grandmotherproject.org). Other examples of indigenous evaluation are Maori-led (Wehipeihana, 2019) and those of Made in Africa (Chilisa, 2015).

In South Asia, too, relationships matter and are fundamental to understanding lived realities as is a more holistic world view that embraces the personal, the community, the environment and the spiritual (Kakar, 1981). Art forms such as dance and music, which reflect cultural underpinnings, are as much about technical skills as about connecting to and expressions of the spiritual. Cultural plurality is demonstrated further by the multi-ethnic presence at sites of pilgrimage and worship. Cultural protocols and norms are intertwined with nature and the environment. Programs and

projects that do not understand such cultural and contextual underpinnings unleash change processes that are imposed, disruptive and non-sustainable. Even addressing inequities for social justice requires a nuanced understanding of the intersecting political, historical and social fabric of communities. Collaborative ways of working, respect for differences, and working with concentric circles of relationships requires nimble, agile and empathetic evaluators. Evaluators working in this region are morally and ethically responsible for ensuring that the evidence gathered shines a light on whether there has been a real and meaningful difference in people's lives, and whether projects and programs have responsibly recalibrated a social equilibrium in the pursuit of gender and social justice.

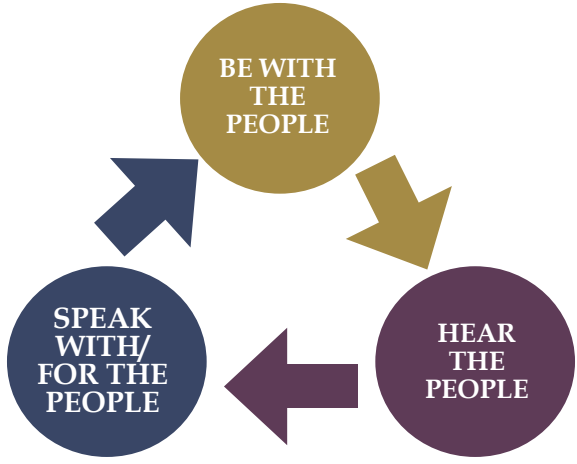
The Local Wisdom Approach

The term " Local Wisdom" is a truism that enables us in South Asia to define how we determine ourselves, to be inclusively diverse, to describe the ways in which people relate to each other and to find pathways of change that intuitively adapt to the interconnectedness of our communities and societies. The importance of collectivism, sense of community, cooperation and maintaining equilibrium in Global South cultures is very different from the individualism and competition found in Global North societies. Like many cultures in the Global South, relationships and social capital are fundamental in understanding how we live and what we value. Individuals are seen as part of wider, intersecting relational webs involving people (living, non-living, inter-generational, elders), and the environment. There is recognition of the importance of communal and sub-communal values and benefits. All too often this is overlooked in current evaluation theory, practice and policy, as those thinking and writing about such cultures are prone to simplify and contain it. By doing so, one not only ignores the lived realities but also are in danger of leaving the most vulnerable and at-risk behind or at best providing cosmetic solutions to deep-

rooted issues. Worse, we miss the opportunity for change that is transformative, equitable, gender and socially just. By framing our evaluative theory and practice in Local Wisdom, we humanize and democratize our evaluations. We hope that Local Wisdom will serve as a guidepost and, in implementation, populate the evaluation approach with methodologies and tools that resonate with the context and culture. Local Wisdom denotes evaluation by for, and with the people. As we move forward, we hope that the discussion on Local Wisdom will question and diversify global evaluation thought and practice to include the rich experiences, worldviews and knowledge systems of the Global South. We believe that such a stance will ensure that development benefits all people in all parts of the world.

For evaluation to get the full benefit of Local Wisdom, it must span the cycle of program planning, implementation, monitoring, and reporting on what works for which outcomes. During the design phase, care must be taken to include all those who hold wisdom about what needs to happen. The main approach proposed to operationalize key evaluation values is given in Figure 1, followed by a description of what each component entails.

Figure 1: Operationalization of evaluation values



Being with the People

Knowing the context and micro-cultures

Being with the people, knowing the complexities of the context and the internationalizes that people are and live with itself is fraught with pitfalls, uncertainty and vulnerability. But it also helps us understand the underlying dynamics, inter-relationships and power structures that intertwine to create a kind of "balance" or so called "harmony". It is up to the evaluator to understand how these impact on the program being implemented. Since power will be challenged in the program and evaluation, a nuanced contextual understanding is critical. Shyam and Lal (Chapter 2) discuss how natural gathering places such as *chaupals* where people congregate daily to talk about affairs of concern was used for various PRA (Participatory Rural Appraisal) exercises. Bhadra (Chapter 3) suggests that such public gathering spaces *(chautari in Nepal)* are inappropriate for women but a place to meet village men. She provocatively suggests that time is precious for women and their time needs to be compensated. She provides examples where the researcher has tended to the baby, or talked to the women farmer while she is in the fields and how this has resulted in good data gathering.

Choden (Chapter 4) discusses how the Gross National Happiness (GNH) Index in Bhutan, while being an indigenous framing, should acknowledge the experience and viewpoints of locals and the community and rely on more qualitative data rather than a quantitative index that is produced periodically. In this sense, a western model of quantitative evaluation was adopted that was disconnected from the people and their communities. The engagement of people in making sense of what happiness means to them was not possible using a standardized, quantitative evaluation methodology and following OECD/DAC criteria. The concept of GNH, which advocates balancing the spiritual and the

material and a multi-layered society, was not assessed in this way. Keerthi (Chapter 5) discusses the traditional *Aththam* in Sri Lanka, where in all agricultural operations, all community individuals participate—men, women, children, co-farmers and neighbors. In fact, guardianship of resources in rural villages, according to Keerthi, is an indigenous knowledge practice for effective land use.

The Evaluator's role

To be with the people also means self-reflexivity, because being with another person/people is also about being in oneself and understanding one's own biases, perceptions and values. Under these circumstances, evaluators need to be agile, switching positions between evaluator, facilitator and observer, with each role contributing to the gathering of evidence. An evaluator will need change management, social and cultural skills along with technical skills to navigate the evaluation process. Shyam and Lal (Chapter 2) talk about how traditional PRA tools had to be reimagined since people wanted to tell stories about their experiences rather than doing PRA exercises. Bhadra (Chapter 3) suggests that the massive feminization of poverty and exploitation in Nepal should lead to an evaluator having an empathetic attitude. As she eloquently says," Respondents are agreeable if you make yourself a more ready partner to share their dirt, dust and despair." Bhadra (Chapter 3) feels that the evaluator must liberate oneself from the expert self and become a "learner self", paving the way for more democratic and inclusive evaluation. She again talks of the need for a patient and empathetic evaluator.

Respecting lived realities

We are spelling out a process that results in another/different form of objectivity, an objectivity that is not at the cost of the human values of the people being evaluated. This objectivity also honors the objectivity embodied in Local Wisdom, where we do

not presume to 'know' people's reality without spending time being with them. An example is understanding poverty: while an outsider may 'see' poverty, the person with Local Wisdom may think themselves well-*off*. Or an outsider may consider an elder as an impediment for change, whereas the community may see him/her as a preserver of cultural values. Singh and Jha (Chapter 2) discuss how the PRA team interacted with farmers *in their fields*, and because the environment was so familiar, the data gathered related to agricultural production was precise. Similarly, the *Quality of Life* PRA exercise was organized in an elderly woman's house where other women and girls from the village had no hesitation in coming. Khatun and Kabir (Chapter 6) outline how even femal- headed households do not identify themselves as such because of social taboos or that legally owned properties of women are considered to be the property of men.

Be with the People: In practice

What does this mean in practice?

- Develop context-sensitive evaluation designs
- Build the capacities of local evaluators to incorporate Local Wisdom as a central tenet of their evaluation practice
- Recognize the role of power relations and hierarchy in societal structures while interviewing, interpreting data and assessing change
- Appreciate the complexity and diversity of gender relations and structural inequities and factor them into program and evaluation design
- Recognize that the unit of change may differ—it could be families, elders, inter-generational, and community leaders.

Hear the People

Experiential engagement

Hear the people means to listen, see, feel, taste, smell —use all your senses. Evaluators need an intuitive understanding of when to ask the next question and what that question should be. To be an intuitive knower, an evaluator needs to be connected to the community by virtue of often spending time with the community and being "a face that is seen". Bhadra (Chapter 3) discusses how the rich indigenous knowledge and local culture in the management of natural resources, linked with cosmology and life systems, was ignored by the state whose faulty policies of forestry development threatened indigenous people's survival. Similarly, Keerthi (Chapter 5) discusses how indigenous means of cultivation and the preservation of knowledge have largely been ignored. People were willing to contribute knowledge using traditional means in agriculture but were not heard. Dev (Chapter 4) talks of the local idioms used in participation forums like the *adda*, a place for debate and discussion. Such a milieu is very different than a focus group discussion (FGD), which is structured with a set of questions. In the *adda*, the dialogic tradition of South Asia comes alive and provides a space for argument, dissent and conversation. Much can be gleaned during an evaluation as well. Khatun and Kabir (Chapter 6) describe how in open forums, the poor class rarely express their opinion because others have a shadow power over them. In such cases, the methods need to be small group or individual focused and the language used by the evaluator truly simplified. They also discuss how the trauma of Rohingya refugees were not considered at all for many projects.

Evaluator's sense-making and intuition

This is about being aware of when to speak, when not to, when to listen, what people say or do not try to convey and the meaning of

silence. In busy groups of people, an individual may not want to share fully. An intuitive evaluator will pick up on this and follow up later, when it is good/safe for an individual to share more about their circumstances. An evaluator speaking too much may block listening to one's intuition. Human-centered evaluators must forfeit their entitlement to speech and be silent so that their intuition can play an active role in their knowing. Intuition may not be informed by only being with just one person; it may be informed by being with many people. And being cognizant of the local diversity such as class, caste/ethnicity, gender, age, dis(ability), etc. Shyam and Lal (Chapter 2) warn that facilitators expect quick responses from the participants to their list of questions, and that they can recall correctly or have readymade information available with them – which more often than not is not the case.

Intuition may be limited by resources as well. This further places limitations on the evaluator's ability to be with the people. This can easily be remedied by funding an evaluation that recognizes the value of being with the people. Pulling evaluations back to the design phase will support this through, for example, scoping projects.

Evaluators can strengthen their intuition by taking care with their outward appearance and who is the best to connect with and hear the people. For example, a woman may be best placed to inquire with women. This hearing may be facilitated by connections made by the evaluator through the way they work in the community: how they dress, how they move among the people, how they question, and the compassion they show.

Accessing 'real' voices

Any person who who shows awareness and a potential to listen carefully should be considered primarily. This may be a local person, it may be a person whose role is respected and/or who

is well-connected with the local people (e.g., para-extensionist, grassroots worker, female community health volunteer (MCHV) in Nepal or ASHA in India). At times, intermediaries can be employed to ease the pathways for people and assure them that they will be heard by an evaluator. This could be a respected person in the community who recruits local people for the evaluator to hear from and in gendered programs, young local females. Ensure that questions and data collection privilege the voices and perspectives of those who should benefit from the interventions by using methods that ensure their voices are present and heard throughout the evaluation and the implementation of the action plan. Bhadra (Chapter 3) discusses how even Nepali- speaking researchers do not speak the same idiom as the women respondents, who are often less educated or not educated at all, suggesting that local researchers and innovative tools are needed to collect data. Similarly, researchers may not correctly estimate the time needed to answer questions; women busy working may provide cursory answers and on occasion may not even understand the questions as a result of "respondent fatigue"..

External evaluators may make the mistake of "what they hear first time is what is real for local people". Unless they bring with them an intuitive knowing and the right disposition, they will not be able to dig deeper to uncover the lived realities and Local Wisdom of the people, let alone be vigilant and hear the stories the local people have to share about their successes. This situation may arise in cases of "respondent-fatigue"; when evaluation sessions are too long and the opportunity cost of respondents' time is too high. The local people are also aware that they can withhold their Local Wisdom, or create a version of reality that is designed for a quick response, or as a way to 'fool' those who question them and showcase more success than is actually warranted (e.g., moving buckets of mushrooms from site to site ahead of the evaluators so that they think there is more production than is actually happening).

Hear the People: In practice

- Use participatory methodologies that support the incorporation of Local Wisdom in evaluation design
- Use evaluation methods that facilitate community-owned data analysis
- Use proverbs, stories, or idioms to engage respectfully with the people involved, to maintain their dignity especially with sensitive topics

Speak With/For the People

Context and micro-cultures

The diversity of peoples demands a nuanced understanding of context to frame the program design, theory of change and evaluation. Western and Global North paradigms are not the right fit and can challenge the home-grown, ground-up movements and struggles. Bhadra (Chapter 3), describes how western feminists and global frameworks on gender equality promoted by powerful donors ignored local feminist knowledge and movements, and did not address the power structures of patriarchy. Rather, and erroneously, gender inequality was located in the socio-religious context of Nepali society.

Evaluator's role

It is important that an evaluator has the freedom to advocate and speak and if they have the permission of the local people, they can and potentially must. Evaluation contracts can silence the evaluators and put at risk their credibility and ability to be with the people in case they return. Other contracts (e.g., from development partners) support dissemination and these enable evaluators to speak not only in an advocacy role but also to return with their findings to

the people. These contracts allow evaluators to fully disclose to the communities about what they are doing, who they are doing it for, and who will have the results. Shyam and Lal (Chapter 2) argue that when people answer to predetermined questions is mere data capturing. The authors say, "If we wish to learn from local people, we must allow them to decide the ways they would use to make us learn… allow local people to define positive outcomes…and to use their ways of collecting information and generating knowledge."

Returning to the people is very important even if it may not be directly connected to the "evaluation contract", as for example in Nepal for the purpose of dissemination of information on policies/laws relating to violence against women (VAW). Because VAW is all-pervasive in Nepal, local men and women are keen to know about the existing laws and policies to combat VAW. During the evaluation session, it may not be possible to discuss VAW; so, evaluators need to return for separate sessions. This becomes key to "evaluators' ethics of care" towards the respondents with whom they carried on the development evaluation.

Speak With/For the People: In practice

- Value the experiential knowledge and disposition of the evaluator (and fund them equitably) to speak for/with the people advocating for change
- Insist on the communication of evaluation findings in ways that are accessible for all those involved in an evaluation

To summarize, this people-centered evaluation approach encompasses the shared nature of 'being' together, where both evaluator and locals share an interactive space that values and fully engages both and requires the evaluator to have a disposition that includes empathy, compassion and the ability to reflect upon and adapt their practice. This recognizes the importance of methodological reflexivity in the context of evaluation.
We challenge whether those who are outsiders are able to bring

this disposition to evaluations with our communities. It is clear from their reliance on us to get evaluation contracts that they lack this disposition and the capability to access Local Wisdom. This is one of the prime reasons why we advocate for evaluation that is by us, with us, and for us.

Moving Forward

Our discussion on Local Wisdom represents a journey to decolonize evaluation practices so that it supports the well-being of our peoples and sustains our cultures into the future. Essentially, this brief is about evaluation that is by us, with us, and for us. The methods and tools that we use in evaluation should necessarily be accessible, comfortable, and understandable to our cultures. This decision cannot be neutral, devoid of the culture and context. Because evaluations and evaluators must address larger societal concerns in the region, we recommend negotiations on the Terms of Reference (TOR). It is not enough to assess if objectives have been met. We need to know who has been benefited, and who has not, and under what circumstances, who was involved and who was not in the planning, design and implementation, and what real differences have been brought from the intervention, and if not, why?. Our programs and their evaluations are largely useless unless we have a transformative, egalitarian, and rights-based paradigm that addresses power inequities which is simultaneously rooted in cultural and contextual solutions. Bhadra (Chapter 3) describes how Nepal could never benefit from the western development model that has been funding development in the country for a very long time. She reiterates that we need to make accurate judgments of what "progress" means and critique whose voice counts in evidence and decision-making. Evaluators will need greater awareness of the inequities and asymmetries of knowledge, power, and resources, whether in negotiations with funders or with communities and use their role carefully and purposefully to elevate the voices and knowledge of the people

and those most vulnerable. . Fundamental to the evaluator's role in promoting Local Wisdom is the establishment of trust while building relationships. This requires both time and resources and a paradigm different from the dominant 'value-for-money' that exists for both program design and evaluations.

We have the opportunity to restore, revitalize and reframe our cultural knowledge, our ways of knowing our identity and values so that we can rediscover and use our own histories, philosophies and cultural assets for the development of our people. We also believe in the importance of sharing and exchange of Local Wisdom/knowledge within and between countries of South Asia for better utility of evaluations.

Through these thought pieces, we hope to expand awareness, strengthen capacity and stimulate the engagement of Global South perspectives and knowledge in the gathering of evidence. We also believe that it is important to position and influence the intellectual space and the resources space to determine evaluation agendas and resource flows. Hopefully, these efforts will encourage other Global South researchers, evaluators, and development professionals to generate new knowledge and evidence, and publish what works best in the Global South. By elevating the positioning and influence of knowledge from the Global South, we hope that global evaluation agendas will create new spaces to drive global change. We hope that all development players— public, private, and civil— will join in this journey.

These objectives will ensure that the process of decolonization will address power asymmetries—both overt and implicit—and enable a deconstruction of the notion that Global North development paradigms are more valuable and then a reconstruction that builds on the cultural assets of the Global South. What does empowerment mean in other contexts, what is true participation, what communal processes work and what alternative paradigms

of development needs to be created that is a natural fit? This is not a neutral endeavor; rather, it is intensely political as we are seeking to reestablish equilibrium between the Global North and the Global South.

It is imperative that interconnections with existing discrimination related to patriarchy, exclusion, and marginalization are simultaneously addressed with decolonization, since inequalities have complex intersections from the macro to the micro, day-to-day living. Unless we legitimize another way of evaluative thinking and practice, we will continue to perpetuate hegemonies of asymmetrical power. We know now that to address the many sticky societal concerns in the Global South we need to embrace the micro-cultures, plurality, and complex interactions in our societies and ensure that our evaluation craft and practice steps up to these challenges. This is a call for action that is long overdue.

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This volume "Local Wisdom Matters: Reflections on Evaluation Theory and Practice from South Asia" is the attempt to bring local knowledge and culture into the regional and mainstream evaluation discourse. This volume of papers on local knowledge and evaluation focuses on claiming our space, sharing our worldview, and preserving our treasures. Although confined to South Asia, this discussion will broaden our understanding of evaluation discourse from the global south.

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