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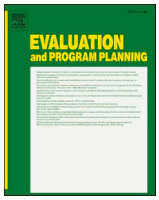

Challenges for evaluation practices and innovative approaches: Lessons during COVID-19 pandemic

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ABSTRACT

COVID-19 pandemic has affected every country across different continents, be a developed or developing economy. The COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems and the world of work. Conducting evaluation during COVID-19 pandemic was even more challenging as compared to the evaluation in conflict areas. Sudden lockdown and sustained restrictions was unexpected and affected the evaluators plan of actions for the ongoing as well as forthcoming evaluation activities. Not only primary data collection but secondary research also got hampered as access to knowledge resource centres/libraries stopped due to closure of these centres. As far as primary data collection is concerned, not only data collection exercise got stopped but even for those evaluations where data collection had been completed, the electronic data entry of filled-in survey schedules got stalled for a while. The paper discusses the critical components of evaluation, which gets affected during pandemic like situation such as use of participatory evaluation techniques; missing evidence based policy decisions; external and internal validity not ensured or ethical norms get compromised. To overcome such situations, the evaluation world should be ready with the suggested solutions such as, Use of Artificial Intelligence, computer-assisted interviews, capacity building of community members for participatory evaluation and making ethical review of evaluation protocols mandatory.

1. Introduction

COVID-19 pandemic has affected every country across different continents, be a developed or developing economy. It has rather been a catastrophe and flabbergasted the humankind like never before. The pandemic and subsequent lockdown, since early 2020, had put the lives of billions off the track across the socio, economic spheres. The COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems and the world of work (WHO, 2020).

Since decades, the policy makers and development professionals are aiming towards making a better world. The process of development, in any society, should ideally be viewed and assessed in terms of what it does for an average individual. For any approach or development framework to be meaningful and effective in directing public policies and programmes it has to be anchored in a social context. More importantly, it should reflect the values and development priorities of the society where it is applied. It is therefore necessary to develop a contextually relevant approach to human development, identify and devise appropriate indicators to help formulate and monitor public policy. This is more so keeping in view many unique concerns and development priorities in some sense tied with India's stage of development as well as her social and economic diversity. (National Human Development Report of India, 2001).

To ensure no one is left behind, particularly the marginalized and vulnerable population, in getting benefitted from the development process, Sustainable Development Goals (SDGs), an inter-governmental set of aspiration Goals with 169 targets, post-Millennium Development Goals (MDGs) aims to transform the world in which poverty is eliminated by 2030. The 17 goals identified relate to Poverty, Food, Health, Education, Women, Water, Energy, Economy, Infrastructure, Inequality, Habitation, Consumption, Climate, Marino systems, Ecosystems, Institution and Sustainability. In September 2015, the United Nations General Assembly formally adopted the "universal, integrated and transformative" 2030 Agenda for Sustainable Development, a set of these 17 Sustainable Development Goals (SDGs). The goals are to be

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implemented and achieved in every country from the year 2016–2030. The idea of the SDGs has quickly gained ground because of the growing urgency of sustainable development for the entire world (Sachs, 2012) . Countries have committed to prioritize progress for those who are furthest behind. The SDGs are designed to end poverty, hunger, AIDS, and discrimination against women and girls (UNDP, 2021). However, development supported by evidence-based evaluation will be more meaningful for every nation, region and population.

This paper aims to highlight the importance of adapting evaluation practices to overcome the challenges posed by situations such as the ones aroused during COVID-19 pandemic. The paper through personal experience of the author shares a number of methodological and logistical challenges faced due to lockdown and restrictions imposed during COVID-19 pandemic as well as suggests ways to minimize or reduce the impact of these challenges on evaluation, without compromising with the quality of the evaluation. The uninterrupted availability of evidence through evaluation will keep the ongoing development activities on track as well as will help to identify the missing links to take corrective measures and ensure the fruits of development reach the target population effectively and efficiently.

2. Importance of evaluation for development and COVID-19

The SDGs' 15-year time frame can be divided into three 5-year phases: a planning phase driven by proactive evaluation and evaluability assessment, an improvement phase characterized by formative evaluation and monitoring, and a completion phase involving outcome and impact evaluations (Yonehara, Saito, & Hayashi, 2017).

To have an impact on decision-making, evaluation findings must be perceived as relevant and useful. The evaluation process itself promotes a further clarification of objectives, improves communication, increases learning, and lays the groundwork for follow up action (OECD, 2012). Role of evaluation in achieving SDGs therefore looks like non-negotiable. The 2030 Agenda for Sustainable Development calls for follow-up and review processes that examine progress toward achieving SDGs. Such processes are needed at international and regional levels, but especially at the national level (Schwandt, Ofir, & Lucks, 2016). As far as evaluation is concerned, it is a methodological area that is closely related to, but distinguishable from more traditional social research. Evaluation utilizes many of the same methodologies used in traditional social research, but because evaluation takes place within a political and organizational context, it requires group skills, management ability, political dexterity, sensitivity to multiple stakeholders and other skills that social research in general does not rely on as much (Trochim, 2006).

The main challenge specific to evaluations in fragile and conflict-affected settings, which may provide some kind experience for handling Evaluation during COVID-19 pandemic, is understanding and adapting to violent conflict, while mitigating the risk that evaluations themselves become part of the conflict or cause harm to those involved. Other challenges which emerge are: complexity, weak theoretical foundations, challenges to data collection, attribution, a highly political environment, multiple actors and multiple agendas (OECD, 2012). Further, in such situations of multiple precarities, the role of the research broker becomes critical in facilitating access to research subjects, assisting researchers in fieldwork, collecting independent data, interpreting and influencing the overall research processes as well as the outcomes (Bush & Duggan, 2013).

During COVID-19 pandemic too, evaluation and research in development sector did not remain unaffected. Priorities of resource allocation shifted towards meeting emergency needs to control COVID-19 pandemic and lesser towards assessment and evaluation. No doubt sudden lockdown and sustained restrictions for general public including evaluators, who fall under the non-emergency category of service providers and professionals, was unexpected and affected their plan of actions for the ongoing as well as forthcoming evaluation activities. Guidelines were issued by UN agencies on examining the necessity of undertaking evaluation and how it could be adapted to meet the restricted and varying environment available for conducting an evaluation. Programme units should review evaluation plans for the year to understand how a continuation of the pandemic and restrictions will impact evaluations planned, and may consider delaying, rescheduling, or combining evaluations. This is subject to individual country situations and government strategies to address the pandemic (UNDP, 2021).

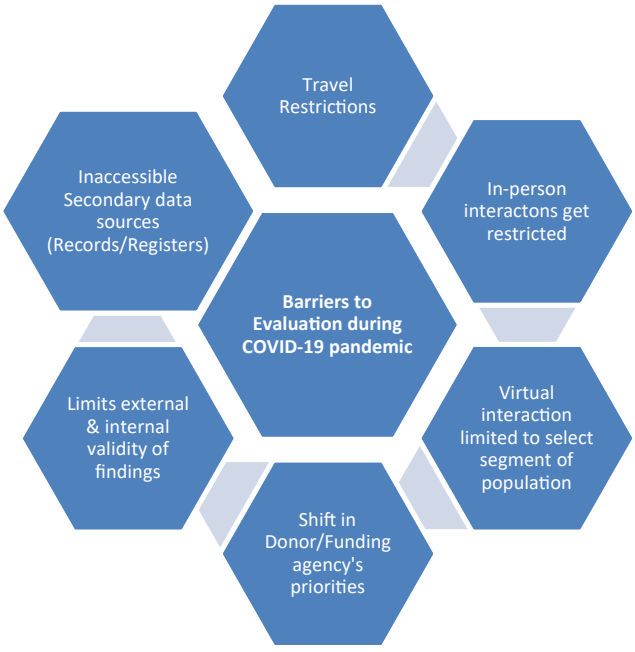
Not only primary data collection but secondary research too got hampered as access to knowledge resource centres/libraries stopped due to closure of these centres. As far as primary data collection is concerned, inaccessibility to primary sources such as community members or frontline health personnel, in person data collection exercise got stalled and even for those evaluations where data collection had been completed in paper survey forms, the electronic data entry of filled-in survey schedules could not happen as offices got closed down. In developing economies, majority of the primary data collection happens using paper-assisted personal interviews (PAPI) and not computer-assisted personal interviews (CAPI) mode, the prevailing situation was unavoidable. While developed economies have been using CAPI for several years, NSOs (National Survey Organizations) in developing economies have yet to take full advantage of this methodology (Asian Development Bank, 2019).

Picture 1 depicts the key barriers to evaluation activities due to restrictions posed during COVID-19 pandemic and subsequent lockdowns and other challenges.

Each of the above mentioned challenges and restrictions are discussed in detail in the following sub-sections.

2.1. Restrictions on travel and in-person interviews

In developed economies, the usage of electronic and virtual interviews is much accepted and well spread. While the first computer-assisted telephone interviews (CATI) were conducted by a US marketing firm in 1971, the first nation-wide CAPI survey occurred only in 1987 in the Netherlands. As CAPI became more popular for largescale face-to face surveys in western countries, researchers became more aware of its impact on the survey process and outcomes (Caevers et al., 2010). However, the situation is not similar in developing economies. In India, for instance the fifth round (2019–20) largest health survey,



Picture 1. Barriers to Evaluation Activities during COVID-19 Pandemic.

National Family Health Survey (NFHS), under the aegis of the Ministry of Health & Family Welfare, Government of India had to be stalled. This despite the fact that data collection is done through CAPI. Restrictions in travel as well as to conduct in-person interviews led to the data collection phase being stopped during the period. The release of findings got delayed even when its data and findings are eagerly awaited by health experts and institutions, not only in India but globally. Experts have underscored the importance of the NFHS surveys that update the DHS (Demographic and Health Surveys) funded by USAID. Its analyses are used by WHO, UNICEF and the World Bank (The Economic Times, 2020). For personnel too engaged in data collection sudden lockdown delayed the payment of enumerations as scrutiny and validation of data happened at a much slower pace.

A survey by the International Initiative for Impact Evaluation, 3ie in short, among evaluation researchers brought out that the vast majority of evaluation researchers (87%) have stopped all in-person field work, although a slight majority (51%) were still conducting research via the internet. Most (64%) respondents reported that all meetings were now taking place online. About 66 per cent of respondents indicated that their collaborations with external partners (local and international) had either been put on hold or had declined (International Initiative for Impact Evaluation,).

2.2. Missing evidence based development

It was expected that to track the progress and outcomes of set targets it is important for governments, both at national and sub-national (province) levels to ensure that M&E of all programmes and schemes, aiming at different SDGs, is conducted in a rationale, robust and regular manner. While monitoring is a regular process to keep track of the inputs and outputs, evaluation is periodic but more insightful to assess the 'qualitative change' that happened due to policy and programme intervention. Evaluation also helps to identify the gaps and hurdles, and in turn take corrective measures to avoid any deviation in the progress of scheme towards its goal and if needed bring change at policy level as well. Evaluation helps to see the outcomes, both short and long-term, for policy intervention. However, COVID-19 pandemic did lead to missing out of some important aspects due to various reasons. Priorities of not only the government agencies but other bilateral and multi-lateral agencies too changed during pandemic, and for right reasons too, for immediate relief to population most affected due to COVID-19 lockdown and restrictions ('*Shift in Donor/Funding agency's priorities'*).

With '*travel restrictions*' in place along with '*restrictions on in-person interactions'*, the data and information collection got stalled. The virtual interaction with population, particularly vulnerable and marginalized was severely affected due to inaccessibility over phone and online.

2.3. Community participation becomes passive

Due to COVID-19 related lockdown and restrictions, lack of participation of community members in designing of evaluation protocol for any development programme, regardless of the fact that community plays an important role not only as beneficiary or receiver of the programme intervention but in intervention itself, was not possible. The absence or the missing link between the community and policy makers and programme managers, did create a gap in prioritizing the intervention activities. Needs assessments could not happen in a scientific manner and was more based on collective intelligence of the programme managers and select section of the population, who had access to mobile phones or virtual platforms for online interviews. In other words, virtual interaction gets limited to select section of population. In fact, under evaluation exercise, to decide the approach of need assessment and assess the short-term or immediate impact, the participation of community was overlooked. In other words, Rights to participation of community, which means that the target population of the programmes and schemes intervention have a voice in deciding the evaluation process as well as are informed about the results of evaluation, did not happen. As a consequence, community members were largely treated as a 'subject' or 'passive beneficiary', and hence had no participation in designing of programme activities or its assessment during COVID pandemic. Absence of the evaluation exercise and participation of the community in getting the feedback and insights, also meant that corrective measures for improving the reach of programme/schemes, were not taken at all or were not evidence based.

The lack of community participation in evaluation during COVID pandemic also meant that the community was not abreast with the findings of the evaluation and assessments. Both these, 'pre-evaluation and post-evaluation' activities are considered to be community's rights under the purview of the 'ethics of evaluation'.

The data collection when conducted in-person and not virtually helps to build rapport with the participants and participation is more forthcoming and expected to a large extent to get honest reply to the survey questions and not just the 'politically correct' responses. The body language of the participants, which helps to examine the consistency and honesty of the responses also gets affected during virtual interaction. By having a good rapport with participant, it may give better information and data access for the researcher due to the trust and understanding built as a result from the good relationship between both of them (Zakaria and Musta'amal Hatib bin, 2014).

2.4. Participatory data collection techniques could not be used

Participatory techniques undoubtedly add value and richness to the information and data collected. Community involvement also enables culturally and logistically appropriate data collection (Macaulay et al., 2011). However, the participatory data collection techniques could not be applied due to restrictions in gathering of community members at one place. In addition to this, the travel restrictions including closure of lodging and boarding facilities made it impossible for the evaluators to be available in-person for collecting data and information for the evaluation.

Table 1 presents a comparative picture of pros and cons of using different methods of primary data collection during COVID-19 pandemic, with the assumption that these methods are applied for data collection.

2.5. External and internal validity got challenged

Another key concern has been to do the generalization of the sample based evaluation findings. It was therefore important to examine whether the findings stand the test of validity primarily due to the purposive and convenient sampling of target population for an evaluation. The randomness of the selection process got affected as every member of the universe of the study did not get a chance of being a respondent to the study, due to unavailability of their contact details for remote connect (through telephone, mobile or e-mail etc.). Even if the contact details were available, it was for select locations of previous study and did not represent the universe. One of the major issues with online surveys is having an updated and accurate email address list for potential participants (Saleh & Bista, 2017). In absence of a well-spread sample selection using an appropriate sample selection method, the causal effect of implementation activities cannot be ascertained and generalized with high degree of confidence. While internal validity examines whether the study design, conduct, and analysis answer the research questions without bias, external validity examines whether the study findings can be generalized to other contexts (Andrade C. 2018).

2.6. Ethical concerns

Considering ethical norms in evaluation prohibit immoral approach towards information/data collection. Further, restricts misrepresentation of information/data and restricts researchers from being biased.

Table 1
Advantages and disadvantages of different methods of primary data collection vis-à-vis restrictions due to COVID-19 pandemic.

Method	Advantages	Disadvantages
Face to Face Interviews	• Random selection of locations and respondents is possible • More probing for better insights • Duration of interviews could be longer • Taking consent of parents for interviewing children is more feasible • Privacy/free opinion of interviewee/ responses may be ensured	• Non-practice/negligence of COVID Appropriate Behaviour (use of mask; social distancing, sanitized surroundings) • High refusal by selected respondents to participate due to fear of getting infected • Interviewers too may hesitate to go for conducting interviews; cost and time implications; more buffer time and resources will be required • Travel restrictions will hamper movement to study locations
Telephonic surveys	• Non-physical interaction possible • Saves travel time and cost • Calls could be made as per the convenience and availability of the respondent, even during early morning or late evening hours, if preferred by respondents	• Limited database of population universe is available • Taking consent of parent/ guardian for interviewing minor may be difficult • No control over privacy • Bias in selection of respondents, as it will be done only from available database of respondents with contact details (phone/e-mail) • Longer duration interviews not preferred • Proportion of refusal or incomplete interviews higher • Poor network/connectivity issue
Online surveys	• Non-physical interaction possible • Saves travel time and cost • Participants can fill at her/ his own leisure	• Limited database of population universe is available • Limits participation of those who are not familiar with online surveys/tech-savvy • Low participation rate • Limits randomness of participants' selection • Higher exclusion rate of participants with non-access to online survey medium • Incomplete survey forms • No probing possible

Also, to an extent, emotional conflicts of surveyed population are addressed properly. In addition, on evaluators' part, accountability of evaluators towards the community gets ensured and organizations likely to fund evaluation can trust the quality and integrity of evaluation.

In addition to this, there was a strong realization that there are ethical considerations associated with sending researchers into the harm's way; prior to COVID-19, the context was conflict zones. However, it moved beyond such unsafe locations in terms of war, natural calamities, terror inflicted ones, and was exacerbated by COVID, and was felt to be taken into account in M&E efforts. This is because there is significant risk of third-party monitors both spreading and contracting the disease, including between densely populated capitals and more remote, yet unaffected areas. These risks are further compounded by inadequate supplies of protective equipment and a lack of access to COVID-19 testing in many of the countries in which the World Bank operates (Chelsky & Kelly, 2020).

Undoubtedly and unfortunately, the COVID-19 pandemic had severely affected the lives and livelihood of millions and millions of people across countries. For marginalized and vulnerable population, in particular, availability of livelihood options is equally important as the saving of lives, of self and the dependents. Such situations become a Catch 22 for the development sector professionals, be in planning and implementation of the development and social welfare activities or in the monitoring & evaluation of the progress of the welfare interventions and support in ensuring better reach, accessibility and availability of interventions and benefits.

Some compromised measures from the ethical perspective observed were,

Use of database of previous surveys are used: During COVID pandemic related lockdown, for any telephonic or online surveys, the contact details of earlier surveys on a different issue were used to connect with the community for the present survey. This is unethical as it is expected that contact details of one survey should not be used or shared for another, without prior consent of the participants.

Consent of guardians/parents becomes susceptible, if the study required interaction with minors using online mediums. At the same time, a minor posing as an adult and participating in a telephonic or online surveys meant for adult participants only was also possible and a matter of great concern ethically as well as the quality of data received.

Contextualization of ethical standards and norms at community level, particularly among vulnerable and marginalized population is very critical. For instance, due to a low literacy level, particularly in remote rural areas, virtual consent from participants is a tough proposition, as they may have reluctance to interact with 'invisible' person (interviewer).

2.7. Dissemination of the findings

Evaluation directly affects decision-making and influences changes in the programme or policy under review. Therefore, post completion of a study, the findings of the evaluation must be shared with the stakeholders. In other words, the dissemination of evaluation approach and findings will help to optimize the resources used to conduct evaluation on similar as well as other issues. Generally, it is expected that dissemination of findings should be done within a given time frame through proper dissemination channel(s) such as workshop and seminars, which got disrupted due to the pandemic.

Delay in dissemination makes the findings out of context for taking corrective measures in programme implementation. As expected during normal times, sharing of evaluation findings with community in a simplified manner helps the community to assess their contribution in scheme's progress and take ownership of change or even no change due to project intervention. The pandemic aborted this process to a large extent.

2.8. Technological limitations

While use of virtual mediums for data collection was the option during COVID pandemic, it brought with it many challenges as well.

Selection of participants gets skewed: Selection of study participants at the household level depends a lot upon who owns the mobile phone. As in most cases, only one contact number from the surveyed household is taken during the survey. If the same number is used to connect again for another study, then chances of other eligible member of the family participating in the survey becomes minimal. Also as observed, mobile phone ownership at the household level largely remains with male member of the family so the participation of a female member in the virtual survey, say through telephonic surveys becomes a lot dependent on the male member. In insecure areas, women often have less access to cell phones than men and this can bias reported outcomes, as was shown in IEG's radio and mobile-based outreach in the Afghanistan Country Program Evaluation (Chelsky and Kelly, 2020).

Suitable for short duration and close-ended surveys: Telephonic surveys,

in particular, are generally, short duration surveys and close-ended structured surveys. The length of the survey is seen to have a negative influence on mail survey response rates. The longer the survey the more likely it is that the response rate will be lower (Boser and Clark, 1995). Moreover, they are less equipped to measure quality and implementation fidelity (The World Bank, 2017) (The World Bank).

Disruption is high: Due to poor connectivity and network issues, telephonic and online surveys are not suitable for remote locations and hard to reach places. Call drops and calls not maturing are commonly faced problems. The conversion rate of online surveys is reported to be low. A low response rate of online surveys has been a concern for many researchers in the last few years; the response rate for web surveys is estimated to be 11% lower than other survey modes (Yan & Fan, 2010).

Granularity of data is missed out: The data collected by technology enabled tools are unlikely to be able to capture the granularity needed to ascertain and address critical environmental, social and conflict related risks, that are more adequately identified through consultations, rigorous supervision, and implementation of citizen engagement processes.

Misrepresentation of information/data is another fear, when data collection is virtual and not in-person. During in-person interaction, emotional conflict, such as trauma and grief of surveyed population, as faced during COVID-19 pandemic as well, are expected to be captured properly. Surveys are likely the most common method of data collection, and they are especially relevant to obtain information on aspects of human experience, could not observable by others (Labott & Timothy et al., 2016). On evaluators' part, accountability towards the community and participants gets ensured and institutions/organizations, who are more likely to fund evaluations can trust the quality and integrity of evaluation outcomes.

3. Conclusion and way forward to overcome pandemic and similar challenges

Achieving SDGs and importance of evaluation for ensuring no one is left behind in this process is interlinked. The efforts made at global, national and sub-national levels need much cohesive and concerted efforts on part of the stakeholders, be it the governments, bilateral, multilateral agencies, civil society organizations or the community members. Evaluators' responsibilities in providing evidence based picture of prevailing situation on different developmental goals are immense. One can also not deny that unforeseen situation similar to COVID-19 may be in store in future and one has to be prepared this time to overcome such challenges so that the development process does not get derailed due to lack of evidences. From ethical perspective too, apart from ensuring no exclusion of any stakeholders due to access limitation or technological barrier, the methodological robustness must be of utmost priority for universal acceptance and generalization of findings for larger population.

As emerged, COVID-19 pandemic while on one hand posed many challenges and disrupted the ongoing activities at different fronts, be it social, economic or political, it also provided the window of opportunities to adapt and think of innovative approaches.

3.1. Use of Artificial Intelligence (AI) for evaluation

Often, we think of evaluation only in terms of how well AI systems perform, yet it is vital to all stages of research, from early conceptualization to retrospective analyses of series of programs (Cohen & Howe, 1988). AI supportive database will be useful in situations like pandemic or inaccessible terrains. It helps to draw inferences from incomplete data or sparse data, even to understand relationships, behaviour or usage, disease surveillance, and could be used across multiple native languages (Ramanajapuram, 2010). However, lot needs to be done, particularly in social development sector. AI has not had a lot of impact on fundamental issues our society faces today. Education, public health, economic development, criminal justice reform, and public safety are just some of the areas where AI can potentially make an impact (Hager et al., 2017).

Encourage data collection using CAPI, as it has multiple benefits in terms of being user-friendly; minimizing error in data collection, consistency and validation and quicker transfer of data for analysis. With improving communication network, faster transfer of data from remote locations is possible. CAPI facilitates logic checks, skip patterns, and validations during the interview. It also saves later efforts on data cleaning. Evaluators can remotely access data from servers to analyse and share the findings in shortest possible time, with high confidence level of data quality and consistency (The World Bank, 2017).

3.2. Capacity building at local level

Situations like pandemic or natural disasters and calamities, also open a window of opportunities for local population. During normal times, it is for the agencies, be it individual or institutions, to do capacity building of the youth, women and men alike, for systematic skill upgradation. Training on capturing data and information, without being biased and inconsistent in approach, will ensure faster collection of data as well as optimal utilization of resources, both financial and time. Strengthening community based participatory evaluation (CBPR) is one such way to ensure regular flow of information, even in adverse situations. CBPR recognizes the importance of involving members of a study population as active and equal participants, in all phases of the research project, if the research process is to be a means of facilitating change (Holkup et al., 2004).

3.3. Ethical approval of evaluation protocols should be mandatory

Ethical review of social research & evaluation protocols should be institutionalized. In most countries, particularly developing economies, duly accredited ethics review committees for social or say, non-clinical research & evaluation are a few, almost non-existent. All evaluations and evaluation activities should ensure a do no harm approach. Adherence to ethical guidelines for evaluation should include ensuring the health and physical safety for stakeholders, national and international evaluators and staff throughout the evaluation process. In addition, evaluations must avoid overburdening and/or off-loading work onto field offices (UNODC, 2020). Most universities though have a duly-constituted ethics committee but their reviews are limited to research by their faculty and students and not to other researchers or institutions (Srivastava, 2020). In pandemic like situations as in areas affected by natural calamities or in conflict zones, research team assessing the benefits of relief work or other ongoing interventions has to be always careful in ensuring that the respondents'/beneficiaries' sentiments are not hurt (Srivastava, 2015). Evaluation Protocols approved by an independent ethics review committee will ensure that all mandated ethical norms are taken into consideration, particularly those related to voluntary participation of potential respondents, their privacy and confidentiality of responses and dissemination of the findings among stakeholders.

From future perspective, the above suggested measures to face the challenges imposed by COVID-19 would ensure preparedness on similar lines for situations other than COVID-19 pandemic, such as natural calamities and severe air pollution, where in-person interactions and travels get restricted but a robust evaluation is much needed without delay to draw strategy for future interventions.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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