## Advancing Health and Population Research and Innovations for Achieving Sustainable Development Goals in Nepal

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The Sustainable Development Goals (SDGs) are an ambitious set of goals adopted by all members of the United Nations for sustainable development in 2015 which is also known as agenda by 20230.1 As we now have only 6 years to the end line, we stand at the most crucial phase to be committed to progress which demands critical review of the progress, identify gaps and focused interventions. After COVID-19 pandemic, Nepal is exploring ways to minimize the impact of the pandemic through the localization of SDGs at the sub-national level and by integrating SDGs into the national development agenda. To achieve the long-term vision of "Prosperous Nepal, Happy Nepali", the 15th Development Plan (2019/20-2023/24) was aligned with the SDGs and was somehow successful in accelerating the pace towards development. Currently, the 16th Development Plan (2024/25 to 2028/29) has been formulated with 40 national goals under governance, social justice, and prosperity.2 Furthermore, the Nepal Health Sector Strategic Plan (NHSSP) (2023-2030) along with other comprehensive policy documents also resonates strongly with the SDGs. The effective implementation of NHSSP 2023-2030 may contribute to achieve health related SDGs in Nepal.

Although Nepal has made significant progress in human development in the last few decades, with improvement in the HDI index from 0.399 in 1990 to 0.601 in 2024<sup>3</sup>, there has been evidence of growing inequalities due to the COVID-19 pandemic and its aftermath. Following the efforts of government and community participation some health indicators such as maternal mortality ratio (MMR), early childhood indicators, and institutional delivery have significantly improved in the last few decades, however, disparities exist across geographical regions, provinces, ethnicities, and social groups. The implementation of incentive programs such as Aama and Newborn programme has proved to become an effective mechanism to ensure that the health of every mother and newborn is protected.<sup>4</sup> Evidence shows that

significant progress in leaving no one behind (LNOB) indicators has been observed for SDGs 1, 7, 8, 10, and 15; moderate progress for SDGs 4, 6, and 12; and slow progress for SDGs 2, 3, 5, 16, and 17.5 For achieving SDG 13 which is about climate action demands multisectoral collaboration because several sector including health sector has significant contribution in national green house gases emissions (4.1%) in Nepal. Furthermore, we must develop a robust system for health and climate data collection, storage, and use<sup>6</sup>. Hence, health sector needs to work both in adaptation and mitigation to address climate crisis as a health crisis. The role of accurate, timely, relevant, and accessible data is crucial for researchers and decision-makers to fully implement and monitor the progress of the SDGs. This will also help to overcome the existing geographical and social disparities most effectively.

To address the complex global problems such as poverty, inequality, emerging and re-emerging diseases, noncommunicable diseases, mental health and climate crisis, and to contribute towards the SDGs, the role of research and innovation is pivotal. Although global spending in research and development (R&D) has substantially increased and reached nearly US\$2.5 trillion in 2024, resources for the Global South are minimal. 7Besides, inadequate government funding in a low-and-middle-income countries (LMICs) like Nepal adds challenges to establishing robust information and communication technology (ICT) infrastructures. Furthermore, the unavailability of disaggregated data has been one of the main hindrances to monitoring the progress of SDGs at local levels8. Identifying innovative strategies for the achievement of SDGs and universal health coverage (UHC) is important as Nepal has its own set of challenges and resources available to mitigate

One of the strategies to ensure the availability of costeffective data in the context of Nepal is to strengthen

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the sources of routine data. Prioritization of routine data results in health system strengthening and regular data availability for continuous monitoring of interventions and to conduct rigorous research Besides, health policy and systems research (HPSR) can be employed to understand how the health system reacts to the existing health policies and how it can be modified with the collective efforts of health system researchers, decisionmakers, and other stakeholders9. HPSR has a great potential to strengthen health systems' building blocks by focusing on access, coverage, quality, and safety for improved health and health equity, responsiveness, social and financial risk protection, and increased efficiency. 10 Finally, promoting interdisciplinary research on HPSR is very important for achieving health related SDGs in Nepal.

To make significant progress towards the SDG health targets, all actors in health including government and non-government agencies, civil societies, and international partners must respond to the ongoing challenges through collaborative actions. Collaborative innovations, eco-friendly innovations, co-innovations, and responsible innovations must be encouraged to achieve the targets of SDGs.11. Nepal Health Research Council (NHRC), an apex body of Government of Nepal to promote and coordinate health research in the country should play a pivotal role for bridging the evidence gaps through promoting research competency of young researchers while also encouraging conduction of implementation research. 12

## **CONFLICT OF INTEREST**

The authors declare no conflict of interest.

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