# Impact, diffusion and scaling-up of a comprehensive land-use planning approach in the Philippines – Results from a rigorous impact evaluation

**Theme 1: Economic research and impact evaluation**


**Abstract:**

Land is a vitally important resource. It is the foundation for socio-economic development and the functioning of local ecosystems. Comprehensive land-use planning and development is the instrument to secure the fair participation of all stakeholders and to ensure sustainable use.

The Philippines are facing a number of land-use related challenges that are relevant to many low- and middle-income countries, including an exposure to natural hazards and climate change, scarcity of land and other resources, endangered ecosystems and challenging socio-economic conditions.

In a rigorous impact evaluation, the authors assessed the impacts of a large-scale, multi-level and donor-assisted land-use planning intervention in the Philippines. The technical approach consisted of a bundle of measures and activities, including training schemes, technical assistance, and the development and implementation of processes and instruments for comprehensive and participatory land-use planning. The comprehensive approach aimed at reducing vulnerability to negative effects of uncontrolled development and to multiple hazards, including human-made risks, and climate change. The development intervention was implemented over ten years by the Philippine–German Cooperation and the Philippine planning authority, the Housing and Land Use Regulatory Board (HLURB). For the first time in the Philippines, the intervention encompassed all municipal ecosystems, "from ridge-to-reef", as well as cooperation of municipalities in the "watershed"-approach. The development intervention, called "SIMPLE" (Sustainable Integrated Management and Planning for Local Government Ecosystems), was locally tested and then was later adopted by Philippine stakeholders as a national policy on enhanced land-use planning.

**Methodology**: The evaluation by the German Institute for Development Evaluation (DEval) implemented a theory-based and mixed-methods evaluation design. The evaluation followed a quasi-experimental approach (propensity score matching with lagged outcome variable) using panel data at household, village and municipal level from 2012 and 2016. We systematically integrated geographic data at multiple points of our analysis. Additionally, we carried out an innovation and policy diffusion analysis establishing a connectivity matrix and assessing spatial autocorrelation in order to estimate whether innovative policies and processes also spread to non-intervention municipalities. The comprehensive evaluation followed OECD-DAC evaluation criteria, and combined methodological rigor and accuracy, transparency and scientific accountability with utility, fairness, independence, and integrity.

We assessed numerous impacts on indicators related to rural development and environmental sustainability at municipal-, village-, and household-level. Based on a reconstruction of the Theory of Change of the intervention, we measured indicators in the five impact fields "Sustainable Natural Resource Management", "Disaster Risk Management", "Local Governance", and "Welfare" with the aim to give a holistic picture of all relevant impacts.

**Results**: We present the significant impacts of an innovative technical approach in land-use planning and local governance, but we also discuss counter-intuitive results. We found that the intervention was able to improve land-use planning as well as planning techniques and capacities in intervention municipalities. Municipalities receiving the intervention showed higher plan quality, greater comprehensiveness, and we found a positive effect on plan approval and the implementation of mandatory planning elements. In contrast, little effect was visible on soft planning elements such as stronger participation, plan integration as well as in addressing structural problems concerning understaffed municipal planning administrations and insufficient enforcement and implementation of plans and planning goals. While the intervention was moderately able to improve sustainable natural

resource management and disaster risk management, no real change in land-use and disaster awareness, as well as on proactive disaster management strategies at lower levels could be achieved. Counter-intuitive findings in the field of local governance pointed to issues in underlying power structures in municipalities and communities, counteracting achievements of planning.

The authors highlight that other rural development interventions significantly contributed to positive effects of enhanced land-use planning. Vice versa, it is important to note that functioning land-use planning is also an important success factor for other rural development measures. Hence, land-use planning and other rural development interventions are interdependent. We found evidence that more training lead to more and stronger effects. We found a significant level of innovation diffusion: Some improvements by the intervention were even taken up by other, non-participating municipalities through informal knowledge dissemination and sharing. Central elements of the intervention have been taken up and integrated into national land-use planning (eCLUP) policy, ensuring continuity of intervention benefits.

On the other hand, we show that impacts heavily depended on the surveyed unit, significantly diminishing from municipal to household level. We identified cross-cutting factors that counteracted effects, particularly weak enforcement and implementation of plans, insufficient information and participation of population, as well as insufficient resources at municipal level.

**Conclusions and implications**: Based on the rigorous measurement of impacts of a complex intervention to improve land-use planning and land-use policy, we provide several conclusions and implications for policy makers, development agencies and local stakeholders involved with land use planning, disaster risk management and local governance.

The intervention has successfully implemented an ambitious and comprehensive planning system. However, this resulted in a lengthy, time- and resource-consuming development and approval process of land-use plans. Thus, to not overburden local planning capacities, local plan development processes need to be adjusted to ensure timely and effective plan development, a streamlined approval process, and better coordination between LGUs and between agencies at provincial level.

The evaluation confirms the strengths of capacity building and participatory land-use planning, as they led to measurable impacts. In the Philippines case, implementation of plans remains an issue due to lacking plan implementation and monitoring capacities. Moreover, negative local political conditions and power structures might hamper implementation and enforcement so that it is either not carried out or not implemented according to plans. Hence, land-use planning interventions need to do more to actively support plan implementation and enforcement, to bind those actors to the common good and to make them accountable. In such areas the addressing of land-use rights and land-use conflicts is of increased importance for a development intervention to not have negative distributional impacts.

The intervention showed that early consideration of national scaling-up opportunities in the planning of new development interventions is recommended. Additionally, horizontal innovation diffusion – from intervention municipalities to those not receiving an intervention – can and should be actively supported. In this case, provincial trainer pools and learning sites (in particular, ambitious municipalities that have proven to plan effectively) were promising concepts that are worth replicating.

In an international comparison, the assessed intervention can be considered a typical “mid-level” development intervention in terms of technical and administrative complexity. The activities implemented are similar to other interventions in other country contexts that have established structures of planning administration but require technical sophistication in planning processes as well as improvements in inter-agency coordination. Hence, the conclusions of this rigorous impact evaluation provide evidence that can be helpful for many other intervention contexts.

**Key Words:** Disaster risk management, Impact evaluation, Land-use planning, Philippines, Vulnerability