

## LAO PDR: Effective Governance for Small Scale Rural Infrastructure and Disaster Preparedness in a Changing Climate

### Issues:

The available climate science indicates that dry seasons are likely to increase in length in Lao PDR while wet season rainfall will occur in even shorter, more intense intervals. While annual precipitation for the Mekong region as a whole is projected to increase by 13.5% by 2030, with most of this occurring during the wet season (May – September), the drier extremes of current projections indicate decreases of up to 25% against historical values. Climate change induced changes in precipitation and resultant change in the river flows of the Mekong and its tributaries, will affect the hydrological regime of the river catchments and watersheds – including wetlands, riparian zones, forests and grassland.



**Figure 1: Critical rural infrastructure in Lao PDR is vulnerable to the changing climate due to increased flooding, landslides, the incidence of drought, and the loss of critical ecosystem functions.**

These systems play a crucial role in flood control, water infiltration, ground water recharge, water storage and release. As such, they provide a natural buffer against natural disasters and creeping environmental change, protecting essential small

### Project Summary

- Country: Lao PDR
- Project Budget: \$4,700,000
- Project Funding Source: GEF/LDCF
- Project Co-Financing: \$25,927,478 (indicative)
- Project Period: 2012-2015
- Implementing partners: Ministry of Natural Resources and Environment, Ministry of Home Affairs

and micro level infrastructure, such as ponds, wells, rainwater storage systems, check dams and irrigation channels and dams.

Climate change impacts are likely to adversely affect this buffering capacity of natural ecosystem and pose an increasing risk of floods, droughts, erosion and landslides. This affects small scale rural infrastructure rural vulnerable populations are heavily reliant on, such as water harvesting, storage and distribution systems.

In an ideal world, local planning and budgeting should integrate emerging development challenges, such as climate change, into local development processes while ensuring effective local participation into decision making processes. In reality, this is not yet the case and the voices of local communities are often bypassed. The proposed project addresses climate risks to local infrastructure in the context of the need to strengthening local administrative capacity, accountability, and public participation, at the same time.

### Actions:

This project uses the UNDP/UNCDF Governance and Public Administration Reform Programme (GPAR) as the primary

entry point for delivering concrete climate change adaptation measures in both drought- and flood-prone provinces of Lao PDR. GPAR, since its inception in 1994, has been supporting the administrative de-concentration process through formula based district development funds (DDF) for improved service delivery along with national policy development and capacity development for civil servants. The DDF facility, allocated as discretionary financial resources, provides greater flexibility to local administrations to reflect the genuine needs of local communities into the local development planning and budgeting process. This project intends that additional resources required for addressing climate change adaptation needs are "topped up" on the DDF. The proposed project is comprised of three pillars:

1. Inclusive planning, budgeting and capacity development for reducing climate and disaster related risks

The key to adaptation in most instances is competent, capable, accountable local administrations that understand how to incorporate adaptation measures into most aspects of their works and departments. Building primarily on GPAR, the project will ensure that local planning and budgeting and execution, including investments in small-scale rural infrastructure (Component 2) and related management of critical ecosystem (Component 3), are climate resilient. This integration will be expressed specifically through the development and implementation of climate resilient district level investment plans. Climate vulnerability and disaster risk assessments will be carried out in each province. Regular planning dialogues for district officials and local community groups will provide the necessary space and technical advice to translate the analysis and assessment of climate risks into practical adaptation actions on the ground.

2. Local investment for reducing climate risks

Local communities will be supported in identifying and investing in small-scale rural infrastructure that builds climate resilience. Investments may be in the form of new infrastructure or enhancing ("climate-proofing") existing infrastructure. Investment decisions will be guided by climate vulnerability and disaster risk assessments carried out under Component 1. Training will be provided for local officials from the construction sector, rural development sector as well as local contractors on climate resilient design of rural infrastructure. This will feed directly into the village and district level planning process. The following types of investments are envisaged: (i) building in necessary 'redundancies' to ensure that existing and planned rural infrastructure can continue to operate effectively under changing climatic conditions; (ii) introducing new technologies

in order to diversify the range of options available for securing safe water under changing climate conditions, as well as increasing resilience to natural disasters.

3. Securing ecosystem services and assets

Specific physical measures will be implemented to enhance and sustain critical ecosystem functions for reducing vulnerability to climate-induced floods and droughts. Measures to increase surface water retention capacity in order to encourage gradual release of water during the dry season and extend to year round supply will be designed, integrated into district plans and implemented with strong community involvement. Measures to protect and manage areas that are important water infiltration and aquifer recharge zones, will be designed and implemented, within the immediate vicinity (sub-catchment) of the infrastructure investments that the project is protecting.

### **Expected Impacts:**

The project is in its preparatory phase after the project concept was endorsed by the LDCF Council. The next eight to 12 months will be spent on developing a detailed project proposal including specific target sites that are in line with GPAR.

The project expects to successfully establish a platform on which district officials and village representatives engage in dialogue to integrate climate resilience into the existing development planning, budgeting and execution process while strengthening natural ecosystem capacity in water provisioning, flood control and protection.

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