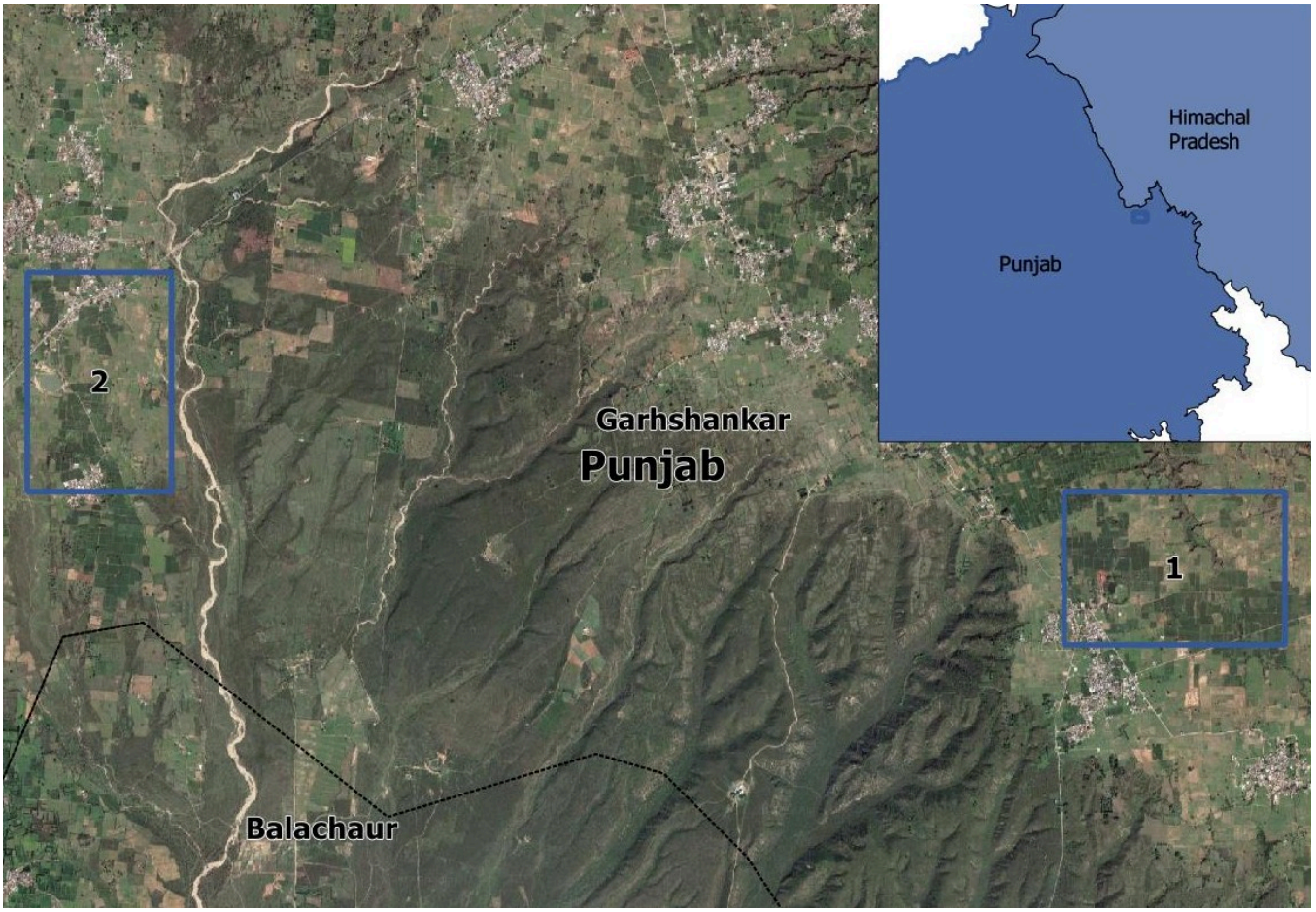
Planning of decentralized erosion prevention for selected rain water retention measures and infrastructure protection in Punjab, India

IPROconsult



Due to the worsening of climate conditions, increasing rainfall intensities during heavy precipitation events within the few monsoon months are predicted in the North West of India (Punjab). Therefore, the erosion risk of large areas rises intensively. New planning instruments are required to allow a reproducible assessment and prediction of soil erosion risks on catchment scale.

The project "Planning of decentralized erosion prevention for selected rain water retention measures in Punjab, India under the aspect of the adjustment to climate change" was developed between the partners GIZ and IPROconsult GmbH and is cofinanced by the GIZ GmbH and IPROconsult GmbH.

The project has a model character and is aimed at:

- adapting the decision support tool EROSION-3D for India in order to predict water erosion
- planning and implementing targeted protection measures regarding the affected catchments
- introducing, through the support decision tool EROSION-3D, an interactive planning of protection measures focused on the development of practical solutions for soil and water management (integrated water management)
- using EROSION-3D for risk assessment, for the development of strategies of "best practices" land use as well as adaptation of rural transport infrastructure.

Client:
German Society for International Cooperation (GIZ), Indo-German environmental program

Services provided:
Adaptation of an instrument for erosion prediction and interactive planning of protection measures in Punjab, India

Cooperation partner:
Punjab Agricultural University (PAU)

Execution period:
2016 - 2019

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The outcome of this project will be focused on the methodological feasibility of a process-orientated calculation of erosion and deposits based on heavy rain (storm water) events.

IPROconsult and PAU (Punjab Agricultural University) are interested to improve the planning solution for future rainwater storage or erosion prevention, helping local communities to establish a self-determined irrigation management through knowledge transfer to local farmers and water associations.

To guarantee the transferability of the working instrument to climatic comparable regions in Punjab, PAU and IPROconsult will develop a standardized and reproducible process for the determination of the erosion hazard classification as well as corresponding concrete protection measures with focus on rainwater retention and transport infrastructure protection. Recommendations for the transferability as well as concrete user guidelines (manual) will be prepared. This implies among others reproducible quality requirements to the data itself (quality management of the database).

Diese Seite ist zu löschen!
Kontaktdaten Auftraggeber
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