



Customized Weather and Climate Information System for Climate Resilient Agricultural System in Nepal



Nepal: Argo-Meteorological Advisory Platform for Agricultural Sector in Nepal

Problem: Nepal has been recognized as one of the most climate-vulnerable countries, due to its complex topography and fragile ecosystems.

Over the past few decades, climate-induced hazards such as flood, drought, and storm have become increasingly frequent and severe in mountainous regions due to changing precipitation patterns and rising temperature.

Challenge: Nepal's weak IT infrastructure and relatively low accuracy level of Nepal met department forecast product hinders implementation and expansion of ICT-based solutions across country.



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Solution:

- Fully automated digital platform to deliver timely and localized digital climate, weather, and agricultural advisories.
- Improved agricultural decision-making.
- Multi-channel dissemination mechanisms.
- Bias-correction mechanisms for improved temperature & precipitation forecasts.



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Key Benefits: Enhanced climate resilience, agricultural productivity, and informed decision-making by farming community.

Next Steps: Scaling the solution across vulnerable mountainous regions, improve weather forecast reliability of DHM, strengthen IT infrastructure, diversification of dissemination channels, ensure long-term financial sustainability through Integrating API operational costs into government budgets, and strengthening inter-agency coordination.



Thank you!

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