
JUNO
Transforming
Evidence for Agriculture,
Food and Climate

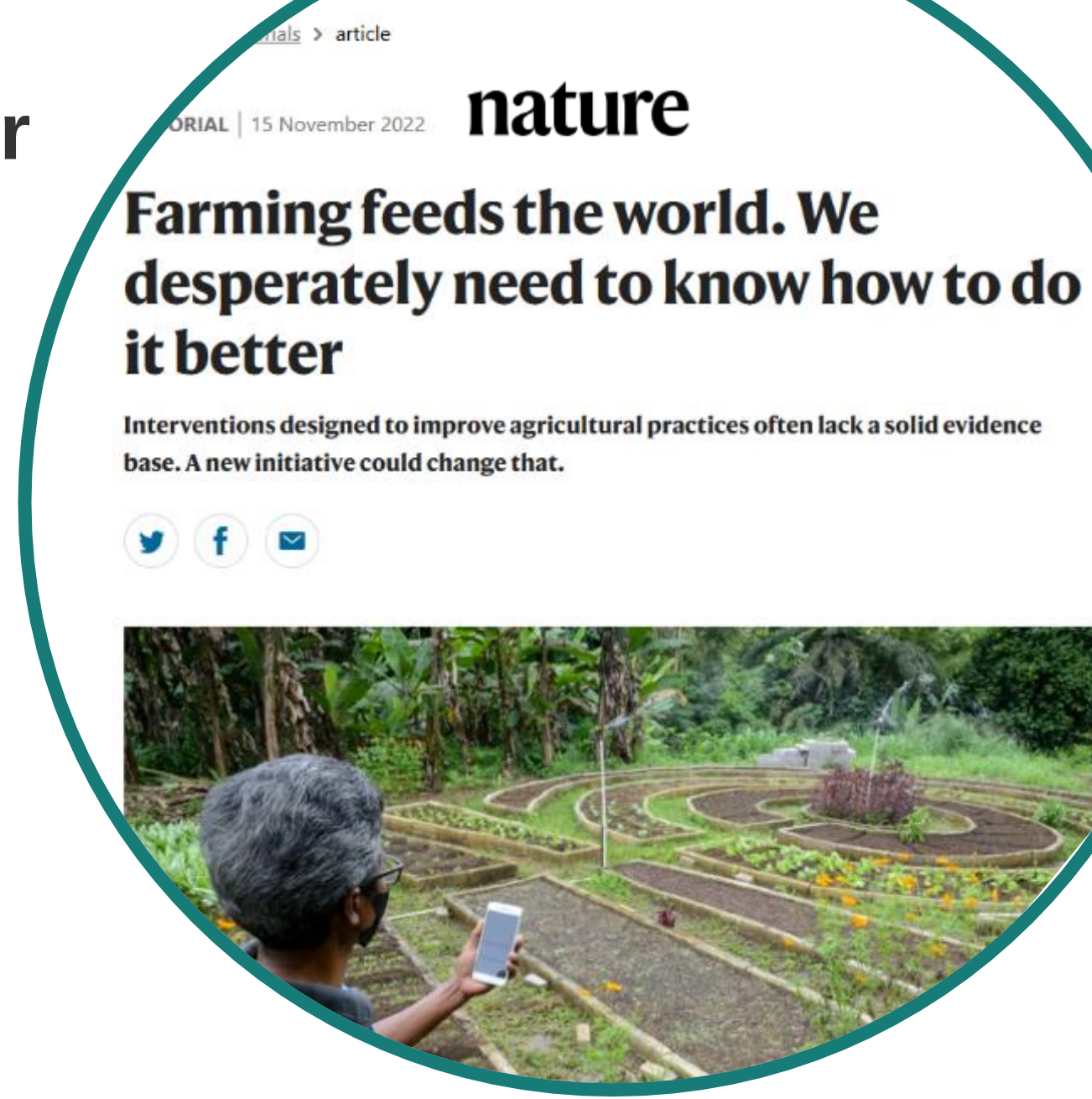

CABI


HAVOS.ai

An evidence alliance for food systems

Our vision

A world where high-quality evidence drives better decisions for agriculture and food systems



Our mission

We provide high-quality evidence to help decision-makers address key challenges and create a more nutritious, food-secure, and climate-resilient future

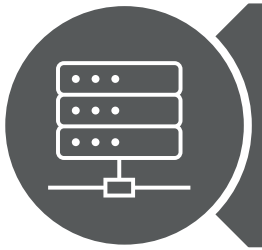
Clear, targeted solutions

A coordinated network

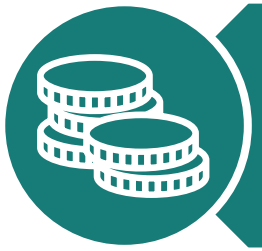
Inclusive, evidence-based decisions

What does Juno solve?

Evidence is not being systematically used to address societal challenges



Decision-makers and researchers can't keep **up-to-date** or **access** the huge volume of research and data

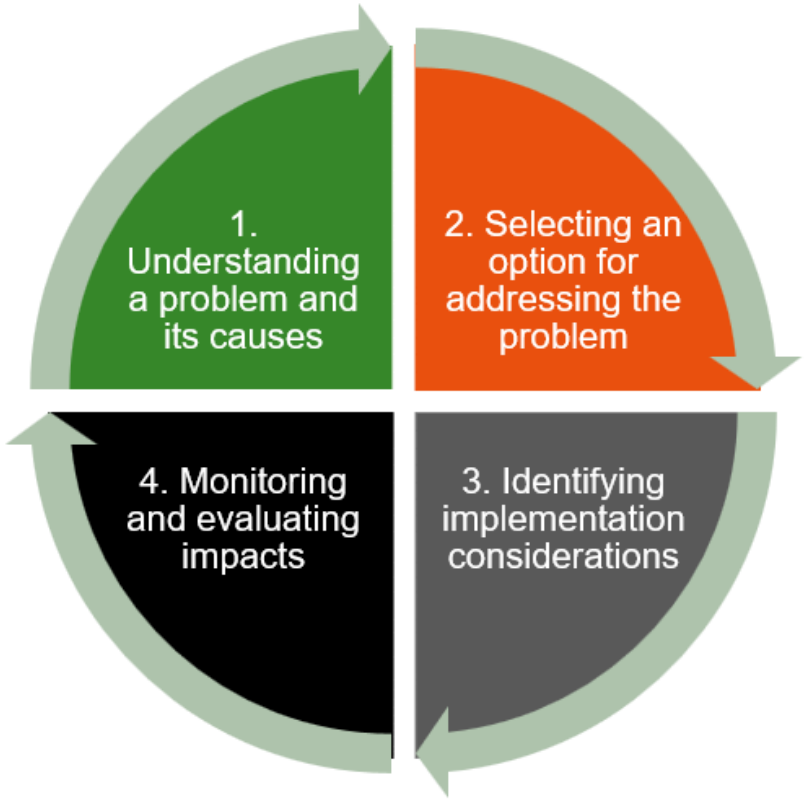


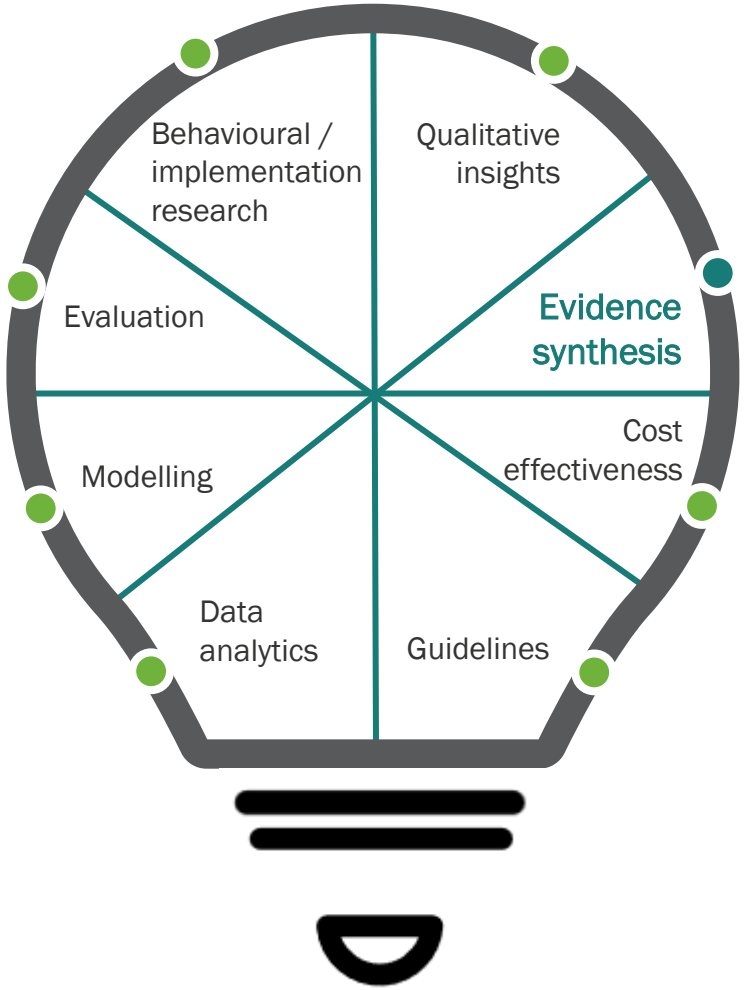
Evidence review processes are currently **expensive and time-consuming**

Lack of awareness of what best evidence is

Evidence informed decision-making

Policymakers engage in a four-step decision-making process and use 8 types of evidence





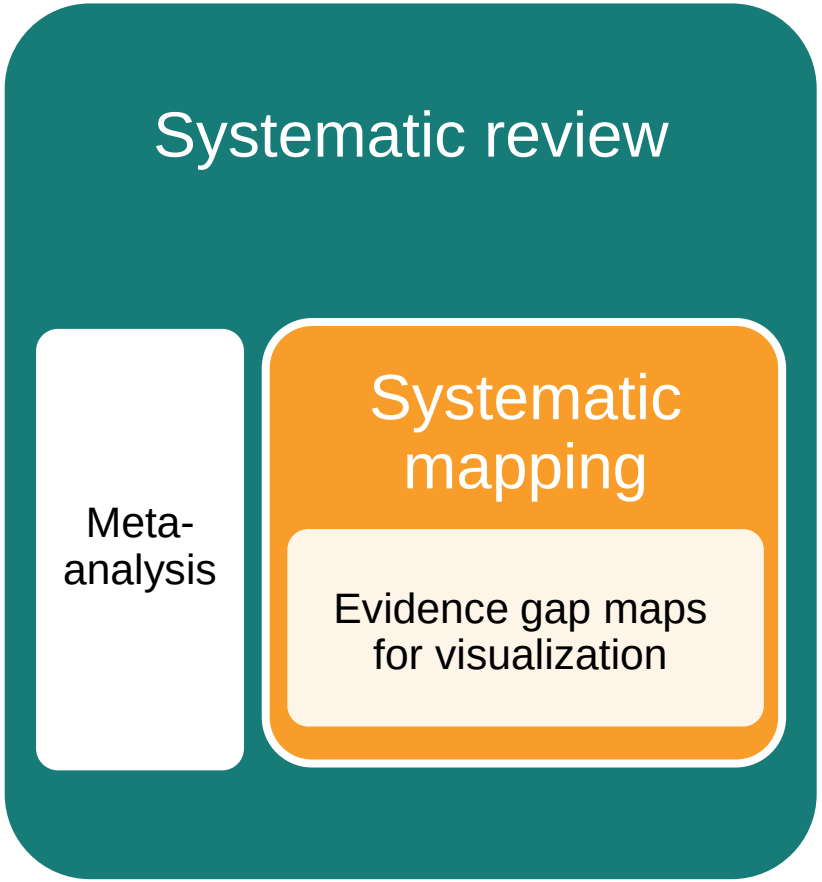
Evidence synthesis: our primary product

Summarizes what we know and don't know based on all studies that have addressed a similar question

Multiple methods available depending on purpose

Our evidence synthesis is:

- Comprehensive
- Representative
- Transparent and reproducible
- Reliable and precise
- Timely



Other sectors are leading the way…

Cochrane is an international network producing systematic reviews to help people make informed **health** decisions.

Campbell is the leading global source of evidence syntheses informing **economic and social** policy decisions

CEE promotes and delivers evidence syntheses on issues of greatest concern to **environmental** policy and practice

Evidence synthesis: proven impact

Informs **75%** of **WHO** guidelines

Trained **30,000+** researchers

Guidelines for every question

Our solutions

Supporting Member Countries

Identify and prioritize evidence needs to help organizations and governments make informed policy decisions

Equip researchers with **proven methodologies** to generate rigorous, high-quality evidence

Train researchers in **policy-relevant evidence production**, fostering a global network of collaborators

Expand data sources and use AI to **accelerate evidence synthesis** and improve **cost-effectiveness**

Drive awareness and adoption of high-quality evidence, ensuring its impact reaches diverse audiences

Partner with **regional and local research networks**, enhancing their ability to generate and advocate for better evidence

Our partners and funders

UK International Development
Partnership | Progress | Prosperity

Gates Foundation

The Rockefeller Foundation

Cornell University

Food and Agriculture Organization of the United Nations

FACT Alliance

USAID
From the American People

Massachusetts Institute of Technology

HESAT2030
Collaborating for a world without hunger

International Food Policy Research Institute
IFPRI

1495 University of Aberdeen

Shamba Centre for food & climate

Information Training and Outreach Centre for Africa
ITOCA

ICED
The International Centre for Evaluation and Development

Our work in 2024

Focus on agriculture, food, and climate

A machine-driven bibliometric analysis of current and emerging **plant health challenges**

FCDO

Understanding critical factors for **One Health implementation**

FCDO

Sustainable agricultural practices for **gender** equity and women's empowerment

FCDO

Best Buys: Cost-effective interventions to **support nutrition**

FCDO

Effectiveness of **nature based solutions** for climate adaptation and mitigation

FCDO

Crop variety performance in **Nepal**

FCDO

State of the Field Report on research in agrifood systems

FCDO / Gates

Vision for Adapted Crops and Soils synthesis

Rockefeller

Public interventions contributing to sustainable agriculture and food outcomes **across Latin America and Caribbean**

USAID

Incentives and mechanisms can support and scale climate action across Latin America and Caribbean

USAID

Assessing the impact of **agrifood system interventions** on **resilience**

FAO

Country focus: Nepal

2024

Local policy-relevant research

Stakeholder consultations

- Key informant interviews: 15+ organizations
- Facilitated workshop to finalize research question
- Top priorities: climate change & plant breeding

NARC
Nepal Agricultural Research Council

UK International Development
Partnership | Progress | Prosperity

Systematic review

Evidence informing policy

Crop breeding in Nepal

- 40,000+ potentially relevant records
- AI narrowed these down to 81 suitable for statistical analysis of yield data

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THE YIELD AND EVIDENCE OF STRESS RESPONSE OF CROP VARIETIES DEVELOPED THROUGH DIFFERENT BREEDING METHODS IN NEPAL

PROBLEM STATEMENT

Nepal's crop output has stagnated in recent years. Moreover, its food and nutritional security is under threat from an increasing reliance on food imports, exacerbated by the reduced availability of arable land and agricultural labour, and the impact of climate change. It is crucial to develop crop varieties with multiple beneficial traits to increase yields and ensure resilience to these threats.

INTRODUCTION

The primary breeding goal for Nepal's key staple food crops is to increase crop yields while minimizing biotic (diseases, weeds, and pests) and abiotic (water deficiency, drought, and heat) stress effects. To this end, approximately 728 crop varieties have been released and registered over the last 70 years.

Our systematic review of the developed crop varieties assesses the effectiveness of different breeding methods (hybridization, introduction, and domestication) in improving crop yields and resilience to plant stressors.

POLICY RECOMMENDATIONS

Prioritize crop breeding research to improve farmers' access to better-performing varieties: Reorient Nepal's national agricultural research system to focus on developing high-yielding, climate-resilient crop varieties, mainly through hybridization.

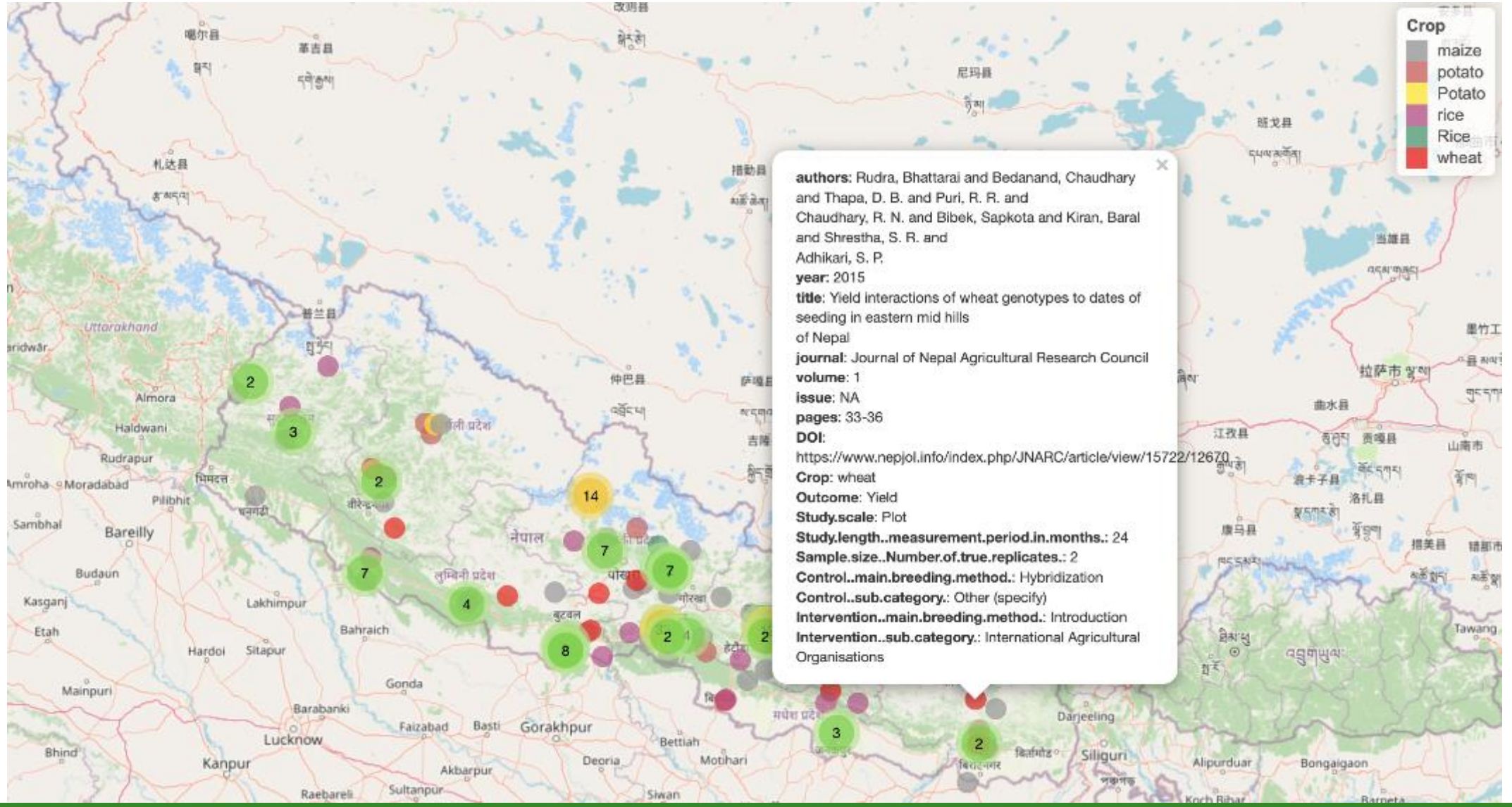
Invest in modern breeding techniques: Increase investment in modern breeding to improve the research capacity of local researchers and breeders, as well as to accelerate plant variety development. This includes investing in modern tools for the rapid development of varieties through local hybridization, introducing high-quality plant genetic resources, and characterizing landraces for specific traits.

POLICY AND RESEARCH RECOMMENDATIONS

POLICY

RESEARCH

Crop variety performance in Nepal



Key recommendations

Invest in vegetable breeding:

Limited research on potato and other vegetable crops compared to rice, maize, and wheat.

Prioritize crop breeding research to improve farmers' access to better-performing varieties:

Reorient Nepal's national agricultural research system to focus on developing high-yielding, climate resilient crop varieties, mainly through hybridization.

Invest in modern breeding techniques:

Increase investment to accelerate plant variety development, investing in modern tools for local hybridization, introducing high-quality plant genetic resources, and characterizing landraces for specific traits.

Training Nepalese researchers

Video highlights and testimonials

2025

2025 Roadmap

Nutrition & Gender in the spotlight

New reviews commissioned in 2024, published in 2025

Promoting **sustainability in the agricultural sector** across Latin America and Caribbean countries

IDB / USAID

One Health Zoonosis systematic mapping

OHH / FCDO

One Health Horizon scanning

OHH / FCDO

Nutrition-sensitive agricultural interventions that can effectively and sustainably address food security and nutrition

Gates

Identifying the links **between climate resilience, food security and nutrition** in LMICs

Competitive FCDO + BMZ

How do **local food systems and procurement** provide nutritional school meals: A systematic review focused on Honduras

Competitive proposal FCDO

The role of **feminism in management and leadership capacity** in agrifood systems in SSA

Competitive proposal FCDO

The role of **gender in soil health**

FCDO

Global Opportunities and Challenges to the **Uptake of Biopesticides**: An Evidence Map

FAO & CABI

Get involved

Thank You

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Q&A