

Financing Agroecological Transition

prepared for EDA Eidgenössische Departement für auswärtige Angelegenheiten (EDA)

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KfW development bank: total commitment amount by country (2021-2025)

for projects in the field of "Agriculture, forestry, fisheries“ for the Financial Cooperation



KfW

Andhra Pradesh Community-managed Natural Farming Scaling Journey

Whole village concept – all farmers and all farms

EXPANSION PLAN - 2031

4 M Farmers
2 M ha
100% villages

Plan for 2026 – 27

Villages: 8390(61%)
Farmers: 2.0 Mn (33%)
Area: 1 Mn Ha(17%)

30 + crops - Rice, millets, Lentils, Cotton, Coffee, Cocoa, Spices,

40,656 farmers 704 villages
2016-17

480,000 farmers 3730 villages 220,000 Ha
2020-21

10,37,000 farmers 4120 villages 486,000 Ha
2023-24

1.13 Mn farmers 4116 villages 524,000 Ha
2024-25

1.77 Mn farmers 8168 villages 926,387 Ha
2025-26

Transition of a farmer – 3 to 5 years
No cash incentives during transition and no promise of market premia

Expenditure (USD)

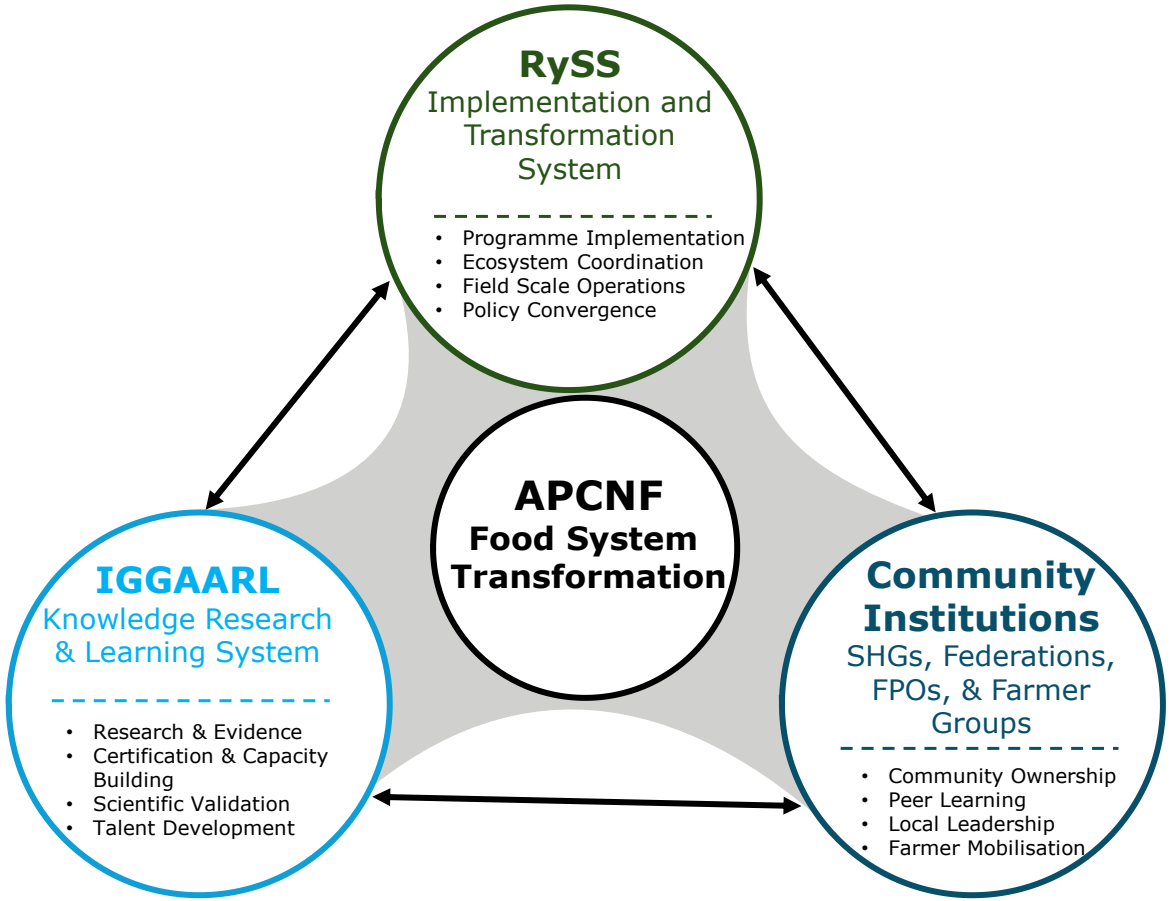
2016-2026: 207 Mn
- **Govt -170 Mn**
- **Philanthropy – 37 Mn**

Plan for next 5 years
- **Total for 2026-31 - 400 M**
- **Govt-330 M (80%)**

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The success factors for APCNF – Institutional Triad -continuous cycle

1. **RySS -** Rythu Sadhikara Samstha - farmer empowerment organization: - ensures central and state government commitments and international partnerships
   - provides **farmer to farmer extension in the villages**
2. **Community Institutional System –** Woman self help groups and the individual farmers → Low production costs, higher net incomes, less risk or more resilience and better family health. No subsidies/no pressure. Sustained self evidence on own fields (own trials).
3. **Knowledge, Research & Learning System** – scientific evidence for scientists and politicians, advisors and farm families and for financiers and donors



INDO-GERMAN GLOBAL ACADEMY FOR AGROECOLOGY RESEARCH & LEARNING

IGGAARL | A strategic project to prove and develop agroecological production technology

01

NATIONAL & INTERNATIONAL RESEARCH

Collaborative research with national and international institutions, alongside farmer-led and internal studies.

Focus: biodiversity, soil health, crop resilience and nutrition.

02

FARMER SCIENTISTS

A four-year, field-based learning programme developing farmer researchers, mentors and community trainers.

Farmers generate evidence and help scale Natural Farming.

03

RESEARCH & TRAINING INFRASTRUCTURE

Research and training centres,high tech laboratories and digital knowledge platforms.

Infrastructure investment is primarily supported by the Government of Andhra Pradesh.

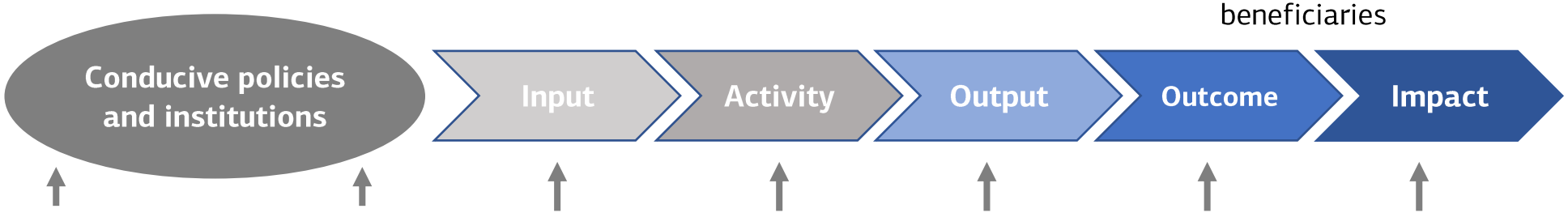
COLLABORATION & CO-FINANCING

Co-financing opportunities are possible across research, farmer-led learning and infrastructure priorities.

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How to encourage and finance the transition?

Possible KfW funding approaches for APCNF



Approach	Policy-based financing	Investment financing	Result-based financing
Objective	**Improving framework conditions**	**Strengthening capacities**	**Strengthening result-orientation, efficiency & ownership**
Disbursement mechanism	• Disburses against **political institutional reforms** • Funds for non-earmarked budget support • No direct disbursement-cost link	• Disburses against **specific expenditure that has been incurred in the course of agreed project activities** • Direct disbursement-cost link	• Disburses upon verified **achievement of pre-defined results** • **No budget support** • **Direct disbursement cost/price-link** (disbursements are usually preceded by equivalent costs on the partner side)
System of execution	Partner country systems & procedures	KfW regulations & procedures	Partner country systems & procedures
Example	EUR 100 million to support energy sector reforms	EUR 100 million for the construction of a solar power plant	EUR 100 for each additional household connected to the electricity grid

Example: Andhra Pradesh Community Natural Framing



Reflecting the transformation in the villages with the payment metric and disbursement indicators:

- DI #1: Number of additional Community Resource Persons trained and deployed
- DI #2: Number of additional farmers enrolled and practicing at least one of the four core principles under the ZBNF programme
- DI #3: Number of additional farmers practicing ZBNF (S2S, all four practices)
- DI #4: Number of compact block farmers practicing ZBNF (S2S, all four practices)

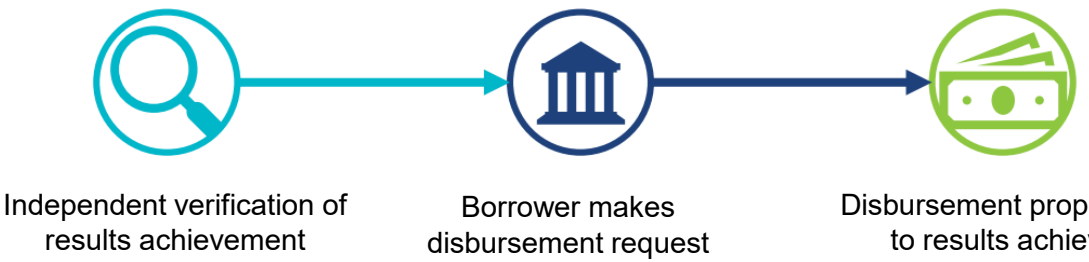
Example: Andhra Pradesh Community Natural Framing

Disbursement indicators

Disbursement Indicator	Description	Baseline (2019)	Target Value (2027)	Allocation % (in EUR) after mid term review in 2024	Flate Rate or "Unit costs"
DI #1: Number of additional Community Resource Persons trained and deployed	Community-level Resource Person (CRP) are deployed as cadre staff & attend training programmes	**5.020**	**7981** (total 10.210)	**10%** (7.8 M EUR)	977 EUR
DI #2: Number of additional farmers enrolled and practicing at least one of the four core principles under the ZNBF programme	The four core principles/"Amruthams" as essential indicators for the implementation of Natural Farming	**176,556**	**445.920** (total 1.2 M)	**45%** (35 M EUR)	78.5 EUR
DI #3: Number of additional farmers practicing ZBNF (S2S)	Seed to seed (S2S) as the minimum standard considered for Zero Budget Natural Farming (ZBNF)	**33.620**	**228.909** (total 596.544)	**30%** (23.4 M EUR)	102.2 EUR
DI #4: Number of compact block farmers practicing ZBNF (S2S)	Seed to seed (S2S) as the minimum standard considered for Zero Budget Natural Farming (ZBNF)	**0**	**62.943**	**15%** (11.7 M EUR)	185.9 EUR

Disbursements | basis mechanism

- **Basically after verified achievement of the agreed results...**



Independent verification agent

- **Fund flow from KfW to Central State to the State of AP to RySS**

Thank You

COLLABORATIVE PROJECTS OVERALL IMPACT – WHAT THE SCIENCE IS SHOWING

Consistent, independently generated evidence across soil, water, economics, biology and climate

15–35%

lower cost of cultivation

IIMR, NIASM, ANGRAU – across maize, groundnut, paddy, cotton & pulse systems

37–41%

less irrigation water

CarbonX, 110 metered farms; mature PMDS farms −33% water, +47% water-use efficiency

+13–27%

higher soil organic carbon

ANGRAU, MSSRF ($p<0.05$), ICRISAT (70 fields), IISWC ~+19%, YSRHU coconut

4.75×

soil bacteria; earthworms +197%

NIASM; 18,742 bacterial types with N-fixing & P-mobilising microbes (MSSRF)

+12–18%

yield in groundnut, chickpea, rice & maize

No yield penalty in cotton, blackgram, maize; B:C ratio higher in every system reported

+13.5%

soil moisture, cooler soils

IISWC, NIASM, PIK, IIMR – higher infiltration and resilience to drought & heat

11 National + 5 International

ICAR institutes, State universities, MSSRF, TERI, AIIMS, CarbonX; ICRISAT, PIK Germany, Univ. of Reading UK, Regenerate Earth, IRRI

Beyond the farm

800 women in nutrition study (AIIMS); GHG & carbon-credit pathway (TERI); climate-resilience modelling to 2100 (PIK)

Farmer-led science

490+ farmer researchers in paired NF-CF trials; 1,100+ farm households in surveys; all agro-climatic zones of AP