

Project Atal: Recognition of Prior Learning (RPL) —An Economic Impact Assessment Report

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Foreward



“Doubling farmer’s income (DFI) by 2022 is the stated goal of Govt. of India.

For far too long, farm and farmers were considered of as just inputs for the National food security. Most extension was technology oriented. DFI committee wants to change the paradigm by treating farm as enterprise and farmer as an entrepreneur.

ATAL agri RPL project is an initiative aimed at transforming the training and agriculture extension to support farm enterprises. This is to be provided by training and implanting KUS (Krushi Udyog Sahayaks / Farm Enterprise Advisors) in the villages. Each KUS is supposed to help around 500 farmers.”

—Prof. D N Rao

Co-founder and Vice President, Centurion University

EXECUTIVE SUMMARY

Executive Summary

Gram Tarang Employability Training Services (GTET) is committed to a **goal of training one lakh farmers in Odisha** on skills for employability and entrepreneurship under 'Project Atal: Recognition of Prior Learning' (RPL). Of this bold goal to be achieved within a year's hands-on training and engagement, **by the end of April 2019 GTET had already trained about 30,000** farmers in various trades. Most of them have been implementing their learnings, bringing in additional incomes, and in many cases their first ones.

Having almost reached a one-third mark, GTET invited Sustainability Co-creators (SUSCO) to help assess economic impact of its agri-RPL efforts using quantitative methods, beyond the qualitative 'Entry-level Impact Assessment' undertaken by it earlier this year.

Methodology & Sampling

Spread over a two-month timeframe, the methodology consisted of *four key elements*: Desk Review, Strategy Workshop with Stakeholders, Data Collection (*across northern, western, southern and coastal regions*), and Outcomes Analysis & Report Writing.

Given that the assessment required covering a **universe of 30,000 RPL** farmers, it was decided that the **confidence level and margin of error be kept at 99% and 2% respectively**. This

meant that we cover a respondent **sample size of 3,654¹**, spread across geographical zones, job-roles, gender, ages-groups, social strata, land-holding size *via* a questionnaire-based field-survey with individual respondents, documenting case studies wherever appropriate.

To ensure that respondents are genuine, we built-in a combination of evidences e.g. Aadhar and mobile numbers on each questionnaire (as far as possible), and pictures of respondents with Aadhar Cards and RPL certificates indicating job-roles.

Data Collection

Spread over three marathon weeks of sampling cum data-collection exercise, **18 districts²** and four zones over a span of 3,000 Kms, we, along with two dozen diligent surveyors (all graduates in agriculture and MIS), engaged with **3,357 respondents³**.

¹ <https://www.surveymonkey.com/mp/sample-size-calculator/>

² We mapped all districts across zones with job roles where RPL trainings were undertaken. Of these, we identified 18 districts across all 14 job roles, spread over four zones.

³ The collection work fell short by 297 respondents, despite enormous and stretched efforts put in the field by SUSCO, surveyors, implementing partners, Krishi Udyog Sahayaks and GTET. Key reason being most farmers were busy nursing their paddy and other monsoon-dependent crops, local festivals, and intermittent monsoon rains.

Respondents

Findings reveal a well gender-balanced, **51:49 female-male** respondent ratio. Respondents formed **86% BPL, 75% marginal, 50% merely cultivating to consume, two-thirds earning less than INR 10-20 thousand a year** from sales of their harvest, those between **18-30 years formed barely 17%** of the respondents and are somewhat missing from the farms. The **landless (13.3%)** worked as agricultural labourers, sharecroppers or as daily wagers. As in traditional homes, **58% of them had four (29%), and five or more (29%) dependents** to provision for.

Key findings

Based on the economic impact assessment results, there is sufficient evidence to proclaim that **Project Atal is moving just in the right direction** via PMKVY's RPL initiative in improving farmers' agricultural skills, farming practices, production and incomes.

Noteworthy here is a resounding majority (almost **100%**) of **farmers who believe** that the **training has positively impacted their incomes**. They felt satisfied with the training, and did not have 'any particular issue or challenge' while undergoing it.

In general, most farmers credit PMKVY's RPL for a progressive shift in their lived and admitted to:

1. **BOOST IN PRODUCTION (28%)**—Farmers trained in job-roles such as maize, mushroom, mango, floriculture, organic grower,

solanaceous, tuber, cotton and citrus witnessed double-digit growth.

2. **ENHANCED FOOD SECURITY (22%)**—Increase in production has helped improve domestic consumption in nutritious foods e.g. mango, mushroom, maize, pulses, citrus, solanaceous and tuber. Besides there is increased consumption of flowers and quality seeds.
3. **AUGMENTED SALES (87%)**—Owing to knowledge of better farm management and jump in production, farmers had larger produce for sale. Thus, most job-roles posted double-digit growths (and triple digits in some cases). These include pulses, paddy, maize, mango, citrus, floriculture, chilies and vermicompost.
4. **SURGE IN INCOMES (98%)⁴**—Due to the RPL training, incomes accrued (in double and triple digits) across job roles for those esp. in mango, floriculture, mushrooms, vermicompost grower, pulses, tuber, maize, cotton, organic grower, paddy, citrus and solanaceous.
5. **QUANTUM SHIFT IN PRODUCTION AND INCOME CATEGORIES FROM LOWER TO HIGHER**—Considerable shift in numbers noticed into higher categories. Respondents who produced less than a quintal, their numbers dropped by 11% and thus a swell in numbers in the '1-4 quintal' category by 10%, and 86% in '4-8 quintal' bracket. Likewise, those who

⁴ While there has been a marked shift and general percentage growth by 30-40% across job-roles in production, consumption, sales and incomes; it must be admitted that certain percentages have seen a sharp rise and registered a three-digit growth resulting in an unusual growth in overall figures. This is largely due to the fact there have been a sizeable first-time cultivators, besides the fact that percentages reflect average 'mean'.

earned '<10 thousand', their numbers declined by 13%, filling into '10-20,000', '20-30,000', '30-40,000' and '>40,000'.

6. **EMPOWERMENT OF WOMEN FARMERS**—*Mushrooms and floriculture, where women are the main cultivators, saw a jump by 71% and 44% in production and 151% and 317% in incomes.*
7. **DEFAULT SURGE IN PRODUCTION 'PRIMARY CROP'**—*Mostly paddy and in some cases maize, tuber and solanaceous), farmers who, prior to training, harvested '4-8' and '>8' quintals saw a jump of 17% and 5% respectively.*
8. **IMPROVED BASIC QUALITY OF LIFE**—*Around 50% of respondents disclosed that they have been investing their additional incomes in under various categories to improve their quality of life. Key among investments were those in 'children's education', 'savings accounts', 'food and groceries', 'household goods', 'medicines', and 'toilet and sanitation'.*
9. **REDUCTION IN UNPLANNED CULTIVATION**—*Around 50% farmers who prior to RPL training engaged in a somewhat hit-and-trial cultivation; their numbers plummeted to 60-70%, the rest deciding to cultivate as per specific job-roles. This seems to have played-off, and augured well for them.*

10. **RECLAIMING EARLIER FARMERS**—*21% (of 614) of farmers who had not been tilling lands before RPL training, came back to farming.*

11. **FPOs REGISTERED (11)**—*Basis enormous success of RPL, stakeholders (Centurion University, GTET, implementing partners and farmers) have registered for FPOs across Odisha, thereby metamorphosing the sector from a purely traditional farming model where one produces, sells and consumes locally, to that of a professionally managed social enterprise.*

The report concludes with a series of **Annexures** including:

- *Data tables*
- *Sample of filled survey questionnaires used for conducting FGDs and enumerating group responses*

—**Abhishek Chaturvedi**
Founder & Chief Executive, SUSCO

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- Inclusive Action (Bargarh)
- Seba Jagat and Antodaya (Kalahandi)
- Harsha Trust (Rayagada, Koraput and Nabarangpur)
- Pradhan Mantri Kaushal Kendra (Gajapati, Balasore, Kendrapada and Jagatsighpur)
- Kalakahnu Infra Project Private Limited (Ganjam, Dhenkanal and Angul)
- Humara Bachpan Trust and ASA (Puri)
- SPARSH (Balasore)
- Santoshi Foundation (Mayurbhanj)
- Niswarth and YARD (Nayagarh)
- CHARM (Kandhamal)
- Maa Santoshi (Jajpur)
- Sneha Trust (Cuttack)
- VYK (Angul)



Field-Survey Advisor and RPL Manager: Dr. Laxmidhar Swain and Amod Kumar Yadav

Survey and MIS team: Soumya, Sunil, Lilambruta, Jyoti, Kaustabh, Smrutirekha, Laxmipriya, Dibyajyoti, Bishwaroop, Satyajit.

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RESEARCH METHODOLOGY

Research Methodology (1)

PHILOSOPHY, FRAMEWORK & METHOD

The research methodology was developed post due deliberation on the most compelling mix of relevant theories, approaches, frameworks, design and sampling methods often adopted for such assessments.

CONTEXT AND FRAMEWORK: Being essentially a quantitative evaluation to assess what economic change has the RPL training made in the life of farmers, we deemed that it was essential to first establish what could be the most appropriate approach and method.

We delved deep to identify those key questions for ourselves and whose answers we later set out to explore. (See table below on the set of questions)

Ontology	Epistemology	The Framework/Paradigm	Methodology	Method	Source
What's the reality?	What and how can we know the reality/ acquire knowledge?	What approach can we take to know/ acquire? <i>Objectivism, Constructivism, Positivism (also Post-Positivism), Interpretivism</i>	What procedure/ policy we can have to know/ acquire?	What tools can we have to know/ acquire?	What information/ data we can detect?

BLEND OF OBJECTIVITY AND SUBJECTIVITY: Since philosophical assumptions such as ontology and epistemology are interconnected, with the first concerned with what is true and the other on the methods to figure out; we agreed to deploy a combination of both these concepts. Key reason being, while positivist and objectivist frameworks help identify the quantitative part i.e. surveys, questionnaires, sampling to measure, correlation, statistical logic and verification; a constructivist and interpretivist approach creates spaces for interviews and perception.

So, while positivism and objectivism helps focuses on the importance of objectivity and evidence in seeking out the reality that come handy in quantifying, identifying and measurement; blending it with constructivist and interpretivist approach helps understand qualitative. Thus, we had a broad method in place to source the overwhelmingly large quantitative data, at the same time scope for qualitative elements.

Research Methodology (2)

Subsequently, we zeroed-in on the methodology, which was **one-to-one on-site questionnaire based survey**, the **listing of the questions**, and **training surveyors** on both soft-skills as well as **techniques of probing** (including inductive and deductive logic).

To test, if all of this works and what improvements we needed to make, the entire survey team **undertook a randomised pilot** in District Puri with a few mushroom-growing women.

Basis our first-hand experience, we regrouped and discussed the lacunae our test, and thereafter fine-tuned the questionnaire and information collection techniques for the full-blown data collection endeavour.



in

The assessment team discussing feedback from the pilot survey and finalising the questionnaire for all the respondents.

Research Methodology (3)

More specifically, the entire assessment can be divided into four key elements:

1. DESK REVIEW: September 2019

During this first phase, for context purposes, we conducted a review of all relevant client-supplied information, questions that could be used for eliciting responses. In addition, we conducted online research of PMKVY, NSDC and GTET's work around farmers, and farmers issues in general in Odisha. The above researches, together with client discussions, were then used to inform the quantitative research.

2. STRATEGY WORKSHOP: September 2019

SUSCO facilitated a two-day field-strategy workshop with key stakeholders at the GTET centre in Khorda. These included representatives from RPL from GTET, Centurion University, representatives from Pradhan Mantri Kaushal Kendra—PMKK (Gajapati, Balasore, Kendrapada and Jagatsinghur) and implementing NGO partners.

The purpose of the workshop was to undertake respondent sampling, finalisation of survey questionnaire, RPL Training Centre-wise details and a detailed plan for field engagement to gather information from respondents. Besides, we clearly desired certain diversity within the sample to best capture myriad responses. Thus, indicators like gender, region, social

structure, land-holding size, agricultural produce/job roles etc. were duly factored in while planning the sampling, timing and logistical movement across the state. A special emphasis was laid to cover women, tribal and marginal farmers to cover last mile outreach. Cyclone affected areas, local weather, current state of crops and local festivals were also duly factored in.

Given that the assessment required covering a **universe of 30,000 RPL farmers**, it was decided that the **confidence level** and **margin of error** be kept at **99%** and **2% respectively**. Basis which we decided to cover **3,654 respondents⁵**, spread across geographical zones of Odisha, districts, job roles, gender, age-groups, social strata, land-holding size via a questionnaire-based survey with respondents, documenting case studies wherever relevant.

To ensure authenticity of data, a combination of Aadhar and mobile numbers on each questionnaire were (as far as possible) and pictures of respondents with Aadhar Cards, along with RPL certificates indicating job-roles were included.

⁵ <https://www.surveymonkey.com/mp/sample-size-calculator/>

Research Methodology (4)

3. FIELD-BASED RESEARCH: September-October 2019 (across Odisha's northern, western, southern and coastal regions)

The third and the most arduous phase of the project consisted, both the field-based data collection and quantitative research.

SUSCO engaged with 3,357 respondents in a marathon sampling and data collection exercise, spread over three weeks, with close to **dozen surveyors** (all graduates and above) who diligently collected data, travelling **over 3,000 Kms.**

During the course, we covered **18 districts across four zones:**

- **Coastal** (six districts: Balasore, Cuttack, Jagatsinghpur, Kendrapada, Puri and Jajpur)
- **Southern** (five districts: Gajapati, Ganjam, Koraput, Nabrangpur and Rayagada)
- **Western** (five districts: Balangir, Bargarh, Kalahandi, Kandhamal and Nayagarh) and
- **Northern** (three districts: Angul, Dhenkanal and Mayurbhanj).

Besides, we were assisted by RPL implementing partners, basis our job-role sampling undertaken in prior with the RPL team.

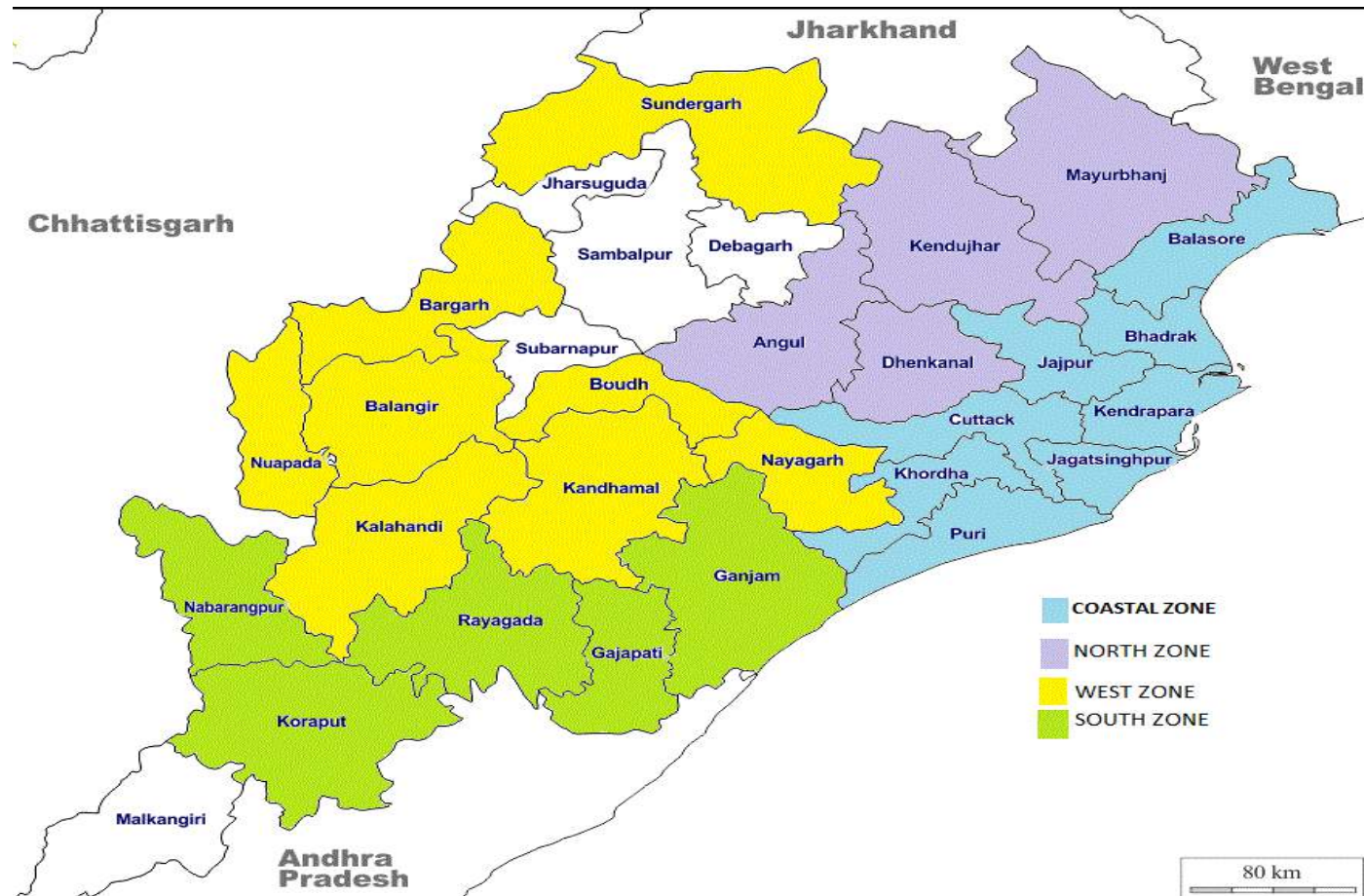
The team also witnessed socio-economic, cultural and geographical diversities, and interacted with communities on several occasions deep inside the 'red corridor' to understand their worldviews, issues and agricultural cycles.

It is worth a mention, that on several occasions, we got surrounded by a few hostile individuals and groups, nurturing grudges against the system and establishment. Precipitating reasons were as basic as not having received a RPL certificate, random rejections by assessors or some financial remuneration.



A surveyor in conversation with farmers, trying to gauge real economic change due to RPL training. In most cases, they had to probe deeper into latter's life, use relevant examples and help recall, to get a sense of what's changed, as most farmers do not keep any records of production and incomes.

Research Methodology (5)



District	Blocks
RAYAGADA	Bissomcuttack, Muniguda
GAJAPATI	Parlakhemundi, Mohana, Gumma
KALAHANDI	Junagarh, Bhabanipatna, M. Rampur
KENDRAPARA	Patamundai, Derabish
JAIPUR	Bari, Badachana, Dharmasala, Rasulpur
NAYAGARH	Ranpur
BALANGIR	Patnagarh
BARAGARH	Gaiselet, Bargarh, Bijepur, Paikamal
NABRANANGPUR	Papadahandi
MAYURBHANJA	Udala, Karanjia, Khunta
BALASORE	Remuna, Jaleswar, Khaira, Sradhpur, Soro
CUTTACK	Cuttack Sadar, Banki
ANGUL	Boinda, Athamalick, Chendipada, Kishornagar
DHENKANAL	Bantol, Kamakhyanager, Gondia, Sairamalia
PURI	Nimapada, Astaranga, Kakatpur, Gop
GANJAM	Purustampur, Surada
KORAPUT	Boriguma, Baipariguda, Kundra
KENDUGHAR	Ghatagan
KANDHAMAL	Khajuripada
BOUDHA	Boudha
BHADRAK	Erasama, Kujanga, Tirtol, Balikuda
NUAPADA	Komna
SUNDARGARH	Rangaimunda, Lethipara

Research Methodology (6)

ZONE-WISE RESPONDENT SAMPLING...

NORTH (District)	Pass	Sample	Ngo	Job Role	Pass	Sample	Surveyed
ANGUL	2763	439	Kalakahnu	Floriculturist	86	14	0
				Mango	349	57	1
				Organic	967	159	296
				Quality Seed	371	61	38
				Vermicompost	762	125	149
			VYK	Solanaceous	228	37	49
DHENKANAL	690	110	Kalakahnu	Mango	248	41	191
				Organic	303	50	90
				Vermicompost	71	12	30
			SHRISTI	Solanaceous	68	11	0
MAYURBHANJ	1238	197	Santoshi Foundation	Cotton	182	30	27
				Floriculturist	189	31	48
				Maize	267	44	49
				Mango	190	31	31
				Mushroom	230	38	51
				Quality Seed	44	7	0
				Solanaceous	46	8	0
				Tuber	90	15	0
Total	4691	769				769	1050

SOUTH (District)	Pass	Sample	Ngo	Job Role	Pass	Sample	Surveyed
GAJAPATI	3528	579	PMKK Gajapati	Chillies	248	41	69
				Citrus	933	153	173
				Cotton	324	53	42
				Floriculturist	687	113	123
				Mushroom	402	66	19
				Quality Seed	215	35	24
				Solanaceous	133	22	24
				Tuber	230	38	47
				Vermicompost	316	52	80
			SACAL	Maize	40	7	0
GANJAM	655	107	Kalakahnu	Mushroom	76	12	16
				Organic	160	26	40
				Vermicompost	242	40	57
			SACAL	Vermicompost	97	16	0
KORAPUT	435	71	Harsha Trust	Organic	56	9	0
				Paddy	247	41	0
				Solanaceous	132	22	0
NABRANGPUR	349	57	Harsha Trust	Maize	62	10	0
				Organic	204	33	0
				Small poultry	0	0	0
				Solanaceous	83	14	0
RAYAGADA	176	29	Harsha Trust	Organic	83	14	11
				Paddy	61	10	10
				Solanaceous	32	5	0
Total	5143	843				5063	830

Research Methodology (7)

WEST (District)	Pass	Sample	Ngo	Job Role	Pass	Sample	Surveyed
BALANGIR	231	38	ASA	Cotton	83	14	0
				Maize	72	12	0
				Solanaceous	76	12	0
BARGARH	1476	242	Inclusive Action	Mushroom	338	55	52
				Organic	95	16	0
				Pulses	176	29	81
			MASS	Maize	83	14	14
				Mushroom	87	14	22
				Organic	221	36	30
				Solanaceous	92	15	21
			YARD	Cotton	80	13	0
				Organic	72	12	0
Solanaceous	232	38		45			
KALAHANDI	650	107	Antodaya	Organic	80	13	33
				Pulses	65	11	20
				Solanaceous	129	21	61
			Harsha Trust	Organic	152	25	0
				Paddy	30	5	0
			Sebajagat	Pulses	149	24	37
				Solanaceous	45	7	0
KANDHAMAL	378	62	CHARM	Organic	184	30	94
				Vermicompost	194	32	32
NAYAGARH	470	77	Nayagarh	Floriculturist	86	14	1
				Maize	59	10	1
				Mushroom	79	13	8
				Solanaceous	167	27	63
			YARD	Solanaceous	79	13	48
Total	3205	526				3205	526

COASTAL (District)	Pass	Sample	Ngo	Job Role	Pass	Sample	Surveyed
BALASORE	736	121	PMKK Balasore	Mushroom	168	27	27
				Mushroom	173	27	0
			RDC	Solanaceous	81	13	0
				Mushroom	167	27	28
				Solanaceous	81	13	0
				Tuber	66	10	10
CUTTACK	1126	185	Sneha Trust	Paddy	202	32	51
				Pulses	81	13	13
				Quality Seed	166	26	26
				Tuber	677	108	131
				Tuber	677	108	131
JAGATSINGHPUR	611	100	PMKK Jagatsinghpur	Mushroom	396	63	111
				Organic	86	14	0
				Solanaceous	48	8	0
				Vermicompost	81	13	0
KENDRAPARA	1477	242	Maa Santoshi	Mango	75	12	0
				Paddy	0	0	0
			PMKK Kendrapara	Floriculturist	0	0	0
				Maize	146	23	32
				Mushroom	206	33	14
				Quality Seed	78	12	10
				Solanaceous	469	74	147
				Solanaceous	469	74	147
PURI	931	153	ASA	Mushroom	80	13	1
				Organic	88	14	41
			HBT	Floriculturist	85	13	12
				Mushroom	179	28	38
				Vermicompost	83	13	21
				Vermicompost	83	13	21
			RWI	Floriculturist	0	0	0
				Solanaceous	152	24	0
				Vermicompost	77	12	0
				Vermicompost	77	12	0
JAJPUR	1282	210	Maa Santoshi	Maize	87	14	12
				Mushroom	333	53	47
				Organic	87	14	14
				Paddy	334	53	63
				Solanaceous	90	14	60
Total	6163	1011			5122	840	909

Research Methodology (8)

4. Outcomes Analysis & Report Writing: October-December 2019

During the last phase, we dedicated ourselves to structuring the report, computing field data, analysing field notes and writing this 'Entry Level Impact Assessment Report'.

We are pleased to share the data outcomes in the next section...



ASSESSMENT OUTCOMES

Assessment Outcomes (1)

RESPONDENT PROFILES

Basis meticulous respondent sampling, findings revealed a well gender-balanced, **51:49 female-male respondent ratio**. Further, two-thirds of the respondents **(83%) were between 31-60 (or above) years, 94% were married and belonged largely (75%) to Scheduled Castes (SC), Scheduled Tribes (ST) and Other Backward Classes (OBCs). 53% were educated upto primary school (standard fifth) level or are illiterate. They predominantly are marginal farmers⁶ (75%), BPL card holders (86%)⁷, poor and cultivated to largely consume (about 50%). The landless (13.3%) worked as agricultural labourers, sharecroppers or as daily wagers. As in traditional homes, 58% of them had four (29%), and five or more (29%) dependents to provision for.**

Thus, farmers being 86% BPL, 75% marginal, 50% merely cultivating to consume, two-thirds earning less than INR 10-20 thousand a year from sales of their harvest, those between 18-30 years formed nearly 17% of the respondents and are somewhat missing from the farms.



Farmers displaying their RPL certificates and Aadhar Cads to ensure authenticity

⁶ **Marginal Farmer** means a farmer cultivating (as owner or tenant or sharecropper) agricultural land up to 1 hectare (2.5 acres). In Odisha, average land holding size is 0.95 hectares. See: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=188051>

⁷ Odisha ranks second among 14 bigger states which have maximum number of population below national poverty line (BPL). As per Niti Aayog SDG India Index Baseline report, while Bihar tops the list with 33.74%, it is 32.59% in Odisha, while national average is 21.92%. As per 2011 Census, over 83% of Odisha lives in rural areas. <https://www.newindianexpress.com/states/odisha/2019/jul/20/odisha-second-bigger-state-in-bpl-rank-2006663.html>

Assessment Outcomes (2)

ECONOMIC IMPACT

Though still early days to generate a substantial economic impact or to double farmer incomes, it can safely be stated that the RPL trainings and subsequent follow-ups by GTET, implementing partners and Krishi Udyog Sahayaks (KUS) has helped farmers shift their gears.

The big change noticed is around their mindsets. From a traditional approach of grow-to-consume or part-sell in local markets for basic survival, a sizeable number of respondents were found to be eager at enhancing their overall quality of life. Consequently, they not just have begun looking at increasing their incomes, but a significant number of them were actually found to have enhanced both their production and incomes across most job roles. Thus, a shift in the mindset.

*As regards the RPL, a resounding majority (almost **100%**) **believed that the training has positively impacted their incomes**. While a mere 2%⁸ and 0.4% said their key reason for undergoing training was just to get a ‘certificate’ or set up an ‘agri-business’ respectively, 13% of them were looking at ‘learning better farming methods’, ‘increasing productivity’ and ‘increasing incomes’; the majority (77%), however, said it was ‘all of these’. They felt satisfied with the training, and did not have ‘any particular issue or challenge’ while undergoing it.*

⁸ Percentages have been rounded up to two decimal points for convenience purpose only. The tables in the annexure have detailed percentage numbers with decimals.

Assessment Outcomes (3)

Impact on Primary Crop

As for the shift in gears, most farmers' **primary crop being paddy (89%)**—also their food crop—and the respondents trained under 'paddy cultivator' being mere 4%, to assess economic impact we employed a blend of methods e.g. their job roles, crops that they grew beyond paddy, secondary crops and even their use of organic, vermicompost and quality seeds.

*Thus, basis training, it was learnt that their **production in the 'primary crop'** (mostly paddy and in some cases maize, tuber and solanaceous among others) **increased, by default**. Information during job-role based RPL training around timing for each stage, spacing, preparation of nursery, ideal method of transplantation, use of organic and vermi-compost, seems to have had a multiplier effect.*

Thus, farmers, prior to training, who harvested '**4-8' and '>8' quintals saw a jump of 17% and 5%** respectively, without even changing their traditional seed varieties. During discussions with them in the field, it came to light that production can double if HYV or better variety of seeds were to be introduced. In fact, some farmers in Kandhamal shared that they have seen a 80-100% jump (now growing 25-30 quintals) per acre from new seeds provided by the government, unlike others who harvested 10-12 quintals.

This, indeed, is remarkable, considering that the state witnessed delayed monsoons, uneven downpour, unpredicted rains and spate of devastating cyclones⁹. Thus, data revealed, and on expected lines, most marginal farmers who earlier harvested <1 quintal and 1-4 quintals, their produce saw a decline by 10-14%.

⁹ Climate change and environmental experts believe year 2019 may break all previous records of cyclones in a year for India. <https://www.downtoearth.org.in/news/natural-disasters/2019-set-to-be-record-breaking-cyclone-year-for-india-67590>

AVERAGE ECONOMIC IMPACT ON FARMERS (PRIMARY CROP)— 20% JUMP IN INCOMES

PRODUCTION	Before	After	Change (%)
<1 Qntls	352	317	-9.94%
1-4 Qntls	972	835	-14.09%
4-8 Qntls	739	864	16.91%
>8 Qntls	1113	1169	5.03%
None	181	172	-4.97%
Total	3176	3185	-0.52%

SALE	Before	After	Change (%)
Upto 10 %	1133	1004	-11.39%
10-20 %	374	379	1.34%
20-30 %	216	263	21.76%
30-40 %	594	539	-9.26%
40 %+ -	859	1001	16.53%
None	181	171	-5.52%
Total	3176	3186	3.80%

CONSUMPTION	Before	After	Change (%)
All 100 %	1065	950	-10.80%
80-100 %	382	386	1.05%
60-80 %	403	478	18.61%
40-60 %	629	571	-9.22%
<40 %	697	801	14.92%
None	181	171	-5.52%
Total	3176	3186	2.91%

INCOME	Before	After	Change (%)
< 10 K	1948	1652	-15.20%
10-20 K	751	872	16.11%
20-30 K	240	387	61.25%
30-40 K	153	168	9.80%
>40 K	84	107	27.38%
None	181	171	-5.52%
Total	3176	3186	19.87%

Assessment Outcomes (4)

*Needless to mention, poor and marginal farmers are the worst receiving lot when it comes to climate change, a reality that we all now live with. **Average production in primary crop, as a result, marginally declined by 0.5% of the respondent sample. Accordingly, their storage for domestic consumption also went up by 2.91%.***

With food security largely achieved for domestic consumption, farmers had more rice to sell local vendors and grain markets for necessary liquidity. Thus, there was a drop by 11% and 9% respectively among farmers who kept all '100%' or 40-60% of their primary produce for domestic consumption, and a rise by 19% and 15% among those who kept only '60-80%' and <40% of the produce. **However, even after a minor decline in production for the RPL, 3.8% of the respondents shared that on an average they had spare crop for sale in the market.**

Unexpectedly, however, a huge number of 61% and 27% of farmers in the '20-30,000' and >40,000 income groups respectively saw a jump in their incomes post RPL training. **As an overall average, 20% farmers earned more and switched gears.**

Assessment Outcomes (5)

Impact on Job Roles

The real economic impact of RPL training was noted in much more detail around farmers' job roles or the secondary crop. These included chillies, citrus, cotton, floriculture, maize, mango, mushroom, paddy, pulses, solanaceous, tuber, quality seeds, vermi-composting and organic farming.

As can be seen in the tables below and in the annexures, Project Atal has enormously helped its RPL farmer trainees improve upon their traditional farming practices, skills and income prospects. The farmers acknowledge this and feel deeply indebted to their trainers, KUS, grassroots NGOs, GTET and PMKVY. Thus, it has been worth an investment, having in store potential to inject the much-needed impetus to the farm sector.

On the whole, the farmers particularly feel that [the initiative has considerably helped them and witnessed:](#)

1. **BOOST IN PRODUCTION (28%)**—Farmers trained in job-roles such as maize (76%), mushroom (71%), mango (63%), floriculture (44%), organic grower (42%), solanaceous (25%), tuber (16%), cotton (15%) and citrus (11%) witnessed double-digit growth.
2. **ENHANCED FOOD SECURITY (22%)**—Improve practices in field preparation, irrigation and pest control is also helping them with improved domestic consumption in nutritious foods e.g. mango (64%), mushroom (50%), maize (34%), pulses (34%), citrus (17%), solanaceous (13%) and tuber (10%). Besides there is increased consumption of flowers (28%) and quality seeds (20%).
3. **AUGMENTED SALES (87%)**—With enhanced knowledge of farm management and food security ensured, farmers had substantial produce for sale. Those job-roles that posted double-digit growths (and triple digits in some cases) include pulses, paddy, maize, mango, citrus, floriculture, chillies and vermicompost.
4. **SURGE IN INCOMES (98%)**—Owing to RPL training, knowledge of multi-cropping, crop-rotation, farming during non-cultivation period, use of organic and vermi-compost,

incomes augmented (in double and triple digits) across job roles for those esp. in mango, floriculture, mushrooms, vermicompost grower, pulses, tuber, maize, cotton, organic grower, paddy, citrus and solanaceous.

5. **QUANTUM SHIFT IN PRODUCTION AND INCOME CATEGORIES FROM LOWER TO HIGHER**—A compelling indication that respondents are closing in on the poverty line or are crossing over into lower income groups, considerable shift in numbers into higher categories is another high point of this assessment. Data suggests that respondents who produced, on an average, less than a quintal, their numbers dropped by 11%. This was compensated by a swell in numbers in the '1-4 quintal' category by 10%, and 86% in '4-8 quintal' bracket. Likewise, those who earned '<10 thousand', their numbers declined by 13%, filling into '10-20,000', '20-30,000', '30-40,000' and '>40,000'. Similar is the case in sale of produce. For example, who sold 'up to 10%' of their produce, dropped by 11%, and thus leaping into higher brackets of selling.
6. **EMPOWERED WOMEN FARMERS**—Mushrooms and floriculture, where women are the main cultivators, saw a jump by 71% and 44% in production and 151% and 317% in incomes.
7. **IMPROVED BASIC QUALITY OF LIFE**—Around 50% of respondents admitted to investing their additional incomes in their 'children's education', 'savings accounts', 'food and groceries', 'household goods', 'medicines', 'toilet and sanitation' among others.

8. **REDUCTION IN UNPLANNED CULTIVATION**—Around 50% farmers who prior to RPL training engaged a somewhat hit-and-trial cultivation in a range of vegetables, cereals, plantation and horticulture crops; their numbers plummeted 60-70%, with the rest deciding to channelise their activities basis specific job-roles. This too seems to have played-off, and augured well for them and RPL on the whole.
9. **RECLAIMING EARLIER FARMERS**—21% (of 614) of the farmers who had not been tilling lands for any agricultural activity before RPL training, came back to farming.

Nonetheless, it is important to mention that most farmers have been trained in the job roles less than a year ago, and the actual overall impact can be noted once the practices are grounded crop by crop, season by season. Moreover, there's still over 10% of farmers who cultivated nothing prior to RPL training, and still are out of farms.

(See next page for overall averages for each job-role in production, consumption, sale and income...)

Assessment Outcomes (6)¹⁰

AVERAGE ECONOMIC IMPACT ON FARMERS (JOB ROLES) – SIGNIFICANT GROWTH IN PRODUCTION, CONSUMPTION, SALE AND INCOMES

PRODUCTION	Chilies	Citrus	Cotton	Floriculturist	Maize	Mango	Mushroom	Organic	Paddy	Pulses	Quality seeds	Solanaceous	Tuber	Vermicompost	Overall
<1 Qntls	3%	-2%	-30%	20%	-19%	-6%	34%	-21%	-21%	-58%	0%	-59%	32%	-27%	-11%
1-4 Qntls	-7%	0%	60%	6%	-54%	-35%	-15%	41%	8%	50%	0%	56%	-11%	49%	10%
4-8 Qntls	33%	-11%	NA	150%	178%	275%	187%	162%	2%	29%	0%	80%	19%	17%	86%
>8 Qntls	0%	57%	NA	0%	200%	17%	80%	-15%	38%	22%	0%	22%	25%	0%	34%
None	-50%	0%	0%	-41%	-6%	-3%	-57%	-3%	-5%	3%	0%	-28%	-16%	3%	-14%
Total	7%	11%	15%	44%	76%	63%	71%	42%	6%	11%	0%	25%	16%	10%	28%

CONSUMPTION	Chilies	Citrus	Cotton	Floriculturist	Maize	Mango	Mushroom	Organic	Paddy	Pulses	Quality seeds	Solanaceous	Tuber	Vermicompost	Overall
All 100 %	-3%	-18%	-33%	-20%	-43%	-11%	8%	5%	-21%	-25%	3%	-39%	33%	-5%	-12%
80-100 %	25%	57%	67%	45%	42%	-15%	35%	-46%	-42%	229%	-50%	67%	23%	-3%	31%
60-80 %	-10%	-8%	NA	100%	92%	329%	85%	55%	100%	-11%	0%	15%	-15%	21%	58%
40-60 %	25%	55%	0%	-25%	80%	0%	90%	0%	-50%	-28%	-37%	5%	5%	44%	12%
<40 %	6%	1%	0%	40%	0%	17%	31%	8%	50%	8%	183%	18%	3%	-10%	25%
None	-50%	0%	0%	-41%	-6%	-3%	-57%	-3%	-5%	3%	0%	-28%	-16%	3%	-14%
Total	8%	17%	8%	28%	34%	64%	50%	4%	7%	34%	20%	13%	10%	9%	22%

SALE	Chilies	Citrus	Cotton	Floriculturist	Maize	Mango	Mushroom	Organic	Paddy	Pulses	Quality seeds	Solanaceous	Tuber	Vermicompost	Overall
Upto 10%	-12%	-24%	-33%	-21%	-47%	-12%	5%	4%	-21%	31%	0%	-37%	23%	-5%	-11%
10-20%	67%	267%	67%	188%	143%	-14%	47%	-49%	-39%	143%	-25%	57%	39%	21%	65%
20-30%	33%	-30%	NA	40%	-14%	475%	70%	-18%	-94%	-68%	0%	-57%	-38%	0%	23%
30-40%	-20%	50%	0%	0%	500%	57%	225%	38%	900%	3000%	-6%	35%	-4%	74%	346%
40 %+	11%	4%	0%	39%	63%	13%	24%	-1%	50%	-46%	11%	13%	16%	-13%	13%
None	-50%	0%	0%	-41%	-6%	-3%	-57%	-3%	-5%	3%	0%	-28%	-16%	3%	-14%
Total	16%	53%	8%	49%	129%	104%	74%	-5%	159%	612%	-4%	2%	7%	15%	87%

INCOME	Chillies	Citrus	Cotton	Floriculturist	Maize	Mango	Mushroom	Organic	Paddy	Pulses	Quality seeds	Solanaceous	Tuber	Vermicompost	Overall
<10 K	2%	9%	-79%	-1%	-35%	-10%	22%	-14%	-13%	-23%	0%	-34%	6%	-13%	-13%
10-20 K	0%	200%	400%	100%	46%	-52%	9%	10%	186%	143%	0%	17%	-3%	9%	76%
20-30 K	0%	0%	NA	13%	88%	1500%	91%	97%	0%	350%	NA	51%	-13%	27%	169%
30-40 K	NA	0%	NA	-27%	67%	NA	633%	100%	NA	38%	0%	38%	400%	450%	131%
>40 K	0%	-95%	NA	1500%	200%	NA	0%	0%	0%	0%	0%	58%	0%	73%	133%
None	-50%	0%	0%	-41%	-6%	-3%	-57%	-3%	-5%	3%	0%	-28%	-16%	3%	-14%
Total	1%	23%	64%	317%	73%	359%	151%	39%	34%	101%	0%	26%	78%	109%	98%

¹⁰ All percentages mentioned have been drawn as per statistical 'average mean'.

Assessment Outcomes (7)

CHILLIES: Despite the fact we convened 69 farmers, who were trained (Chili Cultivator), even when the sample was 37; discussion on ground and subsequent data revealed that only a third are engaged in commercial chili cultivation. Majority of farmers saw a growth of 2.5% in the '<1 quintal' category. 6% of them, however, saw a 33% jump, and 21% saw a decline by 7%. **Average growth in production was registered by 7% chilly farmers, even as domestic consumption grew by 8%. Sale dropped for 44% farmers by 12%, while overall numbers went up 16%.** Overall incomes remained stagnant, with only 1% farmers mentioning minor increase.

CITRUS: Having a relatively long gestation/fruiting period and susceptible to sudden weather and cyclonic influences, several farmer were found to have discontinued citrus cultivation and have chosen safer crops. Majority of citrus farmers (<1 quintal category) witnessed a decline by 2% in production; around 6-7% farmers, however, reported a massive 57% growth. **As a result, 11% farmers registered growth in production. Number of fruit-bearing trees per person being merely 2-3 on an average, most farmers were merely growing to consume or selling little in local markets.** Inclement weather and spate of cyclones also took a toll on production. However, **68% of all citrus farmers who sold in retail markets, reported 53% growth in sales.** Impact on income was geometric, with RPL trainers guiding farmers to sell on current market rates rather than traditional methods (Rs. 100 per 'cement' bag of 50 Kgs). **Thus, citrus farmers on an average earned 23% more.**

COTTON: The job role for cotton seems to have been ambitiously selected for certain farmers in Kerandi Block in Gajapati district. The area is not known for any prior cotton cultivation, and training around it for proposed introduction of cotton farming did not bear fruits. Thus, 42 (61%) of 69 farmers who were trained under cotton, did not pursue the crop at any level. Of the remaining in Mayurbhanj, only 56% took to the crop. Thus, for the farmers who undertook cotton training, saw a **15% jump in production.** However, the relevant respondent being miniscule, an in-depth consumption, sale and income analysis was eschewed.

FLORICULTURE: Floriculture is purely commercial activity and caters mostly to the needs of local markets, except for a little for domestic use. Farmers who were trained in floriculture, 82% (151) pursued farming in flowers. Of these, they **all saw positive growth in production** and registered an overall increase by 44%. Sales proceeds increased by 49% and overall income by a staggering 317%. It is worth a mention that **those earning '10-20,000' saw a jump by 100% in their incomes, while the majority (52%) registered under <10,000.** This is despite the fact that the entire cultivation process of most flowers required fragile care and a spate of cyclone, delayed monsoon and intermittent/ unpredictable rains have been of significant influence.

Assessment Outcomes (8)

MAIZE: The crop saw a near total shift from lower to higher production levels. So, while it saw a 19% and 54% slide under <1 and 1-4 quintals category, it witnessed a 178% and 200% growth in 4-8 and >8 quintals segments respectively. In terms of overall change in percentage, 76% farmers mentioned positive numbers post RPL training. Even as average domestic consumption went up by 34%, the crop registered a 129% increase in sales. Accordingly, 73% farmers said their incomes soared, most of who earned >Rs. 10,000, majority (around 30%) of farmers posted a 35% decline who under <Rs. 10,000 category. A number of them faced hardships in cultivation due to crop destruction by fallow animals and small primates.

MANGO: A long duree investment, often affected by alternate years of good and bad harvest cycles, most mango growers under RPL already had at least some basic mango cultivation in place. Besides encouraging farmers to invest in new varieties of mango. RPL trainers educated them on best practices around cultivation, harvest and post-harvest management, disease and pest management, grading and marketing. The respondents were sampled from Angul, Dhenkanal, Kendrapada and Mayurbhanj. While half of them saw a decline in production by 35% under '1-4 quintal category', number of those farmers who grew '4-8 quintals' saw a three-digit jump i.e. 275%. As an overall average, farmers registered a 63% increase in production. Domestic consumption remained relatively unchanged. Sales dropped for 2/3rd farmers under '<10%' and '10-20%' categories by 12% and 14% respectively, it saw a quantum increase for other categories. As a consequence, farmers had 104% produce in excess to sell in the market. Likewise, those '<10,000' and '10-20,000' saw a 10% and 52% decline, massive rise under other groups led to an average 359% increment. The production was severely hampered by the fani cyclone in April-May for those close to the coastal zone, exactly at a time when trees are laden with unripe mangoes. Besides the respondent farms were located in an around elephant canados. As a result damage was doubled.

PADDY: Unlike paddy farmers in the primary/food crop who saw modest gains by default, impact on farmers with paddy as a job-role (124) was much more specific and positive. Overall production grew by 6%, they consumed less at domestic level, saw a significant increase in sales, and 34% of farmers mentioned increase in incomes. It is pleasing to note that 13% farmers in '<10,000' income category, moved to the '10-20,000' income bracket.

Assessment Outcomes (9)

MUSHROOM: One of the biggest successes of RPL Phase-I training has been the investment in skilling the marginal farmers, esp. a large number of women, in mushroom cultivation. It has been an alleviating crop for most women farmers. As the numbers speak for themselves and fortnightly cash remunerations, women feel a strong sense of personnel empowerment. With cash in their hands and in their savings account, they also feel sense of relief and economic independence. Not just they have a nutritious source for their families, they also feel enabled in addressing day to day household chores esp. around families' health and children's education. Barring a few cases where the farmers grew and consumed the produce themselves as a onetime activity; most others demonstrated progressive commitment to mushroom cultivation. Data reverberates with them in what they already know across segments: production is growing (71%); being high on nutrition, they consume in large numbers while also sell a good quantity (74%); their incomes have soared by 151%. And there is more good news to this. Most of them are switching to higher income brackets at a rapid pace. However, number of farmers in '<10,000' income category rose by 22%, owing to lack of motivation to undertake mushroom cultivation on a sustained and scalable basis.

SOLANACEOUS: This is the lifeline and day-to-day liquidity inflow job-role for all farmers. Almost, all farmers engage in the cultivation of vegetables, solanaceous in particular – tomato, brinjal, chilly, potato, capsicum among others. Under RPL, survey was undertaken for 518 farmers. As per data results, average production rose by 25%, domestic consumption grew by 13% and incomes soared by 26%. It is worth a mention that number of farmers who produced '<1 Quintal' fell by a massive 59%, and swelled numbers in '1-4 quintal' category by 56% and '4-8 quintals' by a huge 80%. Thus, making a significant shift to next level. Similarly, number of farmers earning '<10,000' fell by 35%, and propelled the '20-30,000', '30-40,000' and '40,000+' groups by 51%, 38% and 57% respectively. This, indeed, is remarkable and demonstrates how farmers are quickly changing gears under RPL.

TUBER: One of the top most consumed and grown crops across the world, tuber (mostly potato in this case, and colocasia to some extent) is a fairly standardised crop and market driven, with less fluctuation in prices across geographies. RPL training of farmers (188) bore mixed results. So, on an average, production grew by 16%, so did consumption by 9%; sales by 7% and incomes for most remained unchanged or turned negative.



Assessment Outcomes (10)

PULSES: Pulses are a key food crop, source of protein for most, and universally grown and consumed. Like, rice, potato, onions and other globally produced and consumed crops, these too are market driven and regulated, leaving little scope for windfall gains or widescale fluctuations. For most vegetarians and poor (who can ill-afford animal protein on a daily basis), this is an almost mandatory food item in every household across India and South Asia. Thus, while farmers who were trained in this job-role and incorporated their learnings to their fields, witnessed an average 11% increase in yield, and thus a small drop in consumption across categories. With meagre produce left for sale, growth in incomes were modest. It is noteworthy, that number of farmers who produced '<1 quintal' dropped by a huge 58%, pushing numbers in other segments viz. '1-4 quintals', '4-8 quintals' and '>8 quintals' by 50%, 29% and 22% respectively. As a result, farmers who consumed 'all 100%', '60-80%', '40-60%' saw a fall by 25%, 10%, 28% and 8% respectively. However, consumption enormously jumped in the '80-100%' category, reducing space for excess produce for sale. On a positive note, number of farmers earning '<10,000' dropped by 23%, seeing a flip over into higher income brackets, esp. '10-20,000'.

ORGANIC: In view of wellness and better health being increasingly desired by people worldwide, organic farming is gaining currency at a rapid pace. This will also address growing demand of consumers who are looking at healthier groceries for their families and minimising use of artificial and chemical laden foods. However, being an input to restore soil health and enhance overall quality of crops, besides enhancing productivity; a direct economic impact on farmers is less easy to gauge. Discussions with farmers during the assessment survey, revealed a reduction in input costs (esp. chemical fertilisers) by 25-30% and a mixed impact on production and incomes. Since the farmers have not reached such a scale of production where they can package and sell, most have been using the much valuable dry and decaying biomass around their fields for their own cultivable lands. Across the respondents, there is an unanimity that use of organic fertilizers have led to an average rise in production and income by 25-30%, across crop varieties. Not surprisingly, thus, it is learnt that nearly one in three homes had domestic milch animals, and post training, almost all of them now resort to organic farming practices. Data results show that due to its use, farmers reported an overall production jump by 42% across crops, around 2/3rd of farmers used the manure for their own fields and miniscule selling. However, while very poor farmers, majority of who produce '<1 quintal' (56%) saw negative growth in incomes (-14%), those (32%) in '10-20,000', '20-30,000' and '30-40,000' income brackets saw sizeable income growth to 10%, 97% and 100% respectively.

Assessment Outcomes (11)

VERMICOMPOST: Like organic, vermicompost is becoming popular. It helps not just decompose organic waste and turn it into an excellent manure in solid and liquid forms, it helps with sanitation and hygiene too. Of course, it is being increasingly bought and sold for a wide variety of purposes, from farms to landscaping and personal gardens. Of the 369 respondent sample, 334 took to vermi-composting. On an average, across assessment categories, farmers informed an increase of 10% in production, 15% rise in produce for sale, with minimal change in income percentage. Those who produced '1-4 quintals' and '4-8 quintals' saw an increase of 49% and 17% respectively. In terms of income, there was a 9%, 27%, 450% and 73% surge for those farmers segmented under '10-20,000', '20-30,000', '30-40,000' and '>40%'. However, very poor farmers who grew '<1 quintal', production fell by 27%. Apparently, their incomes (those <10,000) also dipped by 12.5%.

QUALITY SEEDS: Farming is as much a science, as a skilled art. And for good cultivation and harvest, incremental production and remuneration, farmers need to duly store the seeds that they saved from their harvest or buy from local markets. RPL trainers had duly shared best practices for that. However, it was found that the learnings were only partially put to use or none at all. All the respondent sample who undertook storage of seeds (80 of them) prior to learning, continued to do so using earlier methods. They informed generic use of Bavistin powder (carbendazim)¹¹

MIXED CROPS: 1,531 farmers were found to undertake agricultural activity in a range of vegetables, cereals, plantation and horticulture crops prior to the RPL trainings. Basis learnings, this number reduced to 1,096, with the rest (515) deciding to channelise their activities basis specific job-roles.

NONE: 614 respondents who were not into organised farming were trained under RPL; of this, 483 are still to undertake any activity as per RPL based job roles.

¹¹ A controversial pesticide increasingly banned for cultivation across developed world. Recently banned by the state government of Punjab.
<https://www.tribuneindia.com/news/punjab/state-bans-nine-pesticides/807340.html>

Assessment Outcomes (12)

Farmer Producer Organisations (FPOs) Formed

Almost all farmers wish to combine into cooperatives and transform into a Farmer Producer Organisation (FPO) model. But how, is what they earlier wished to know! They are keen to break the barrier of selling part of their produce to the neighbourhood retail market (*haat*), jump a few intermediary layers for a better price.

The good news is that GTET and Centurion University, along with some of its progressive partners, are in the final stages of rolling out these new engines of farm progress and shift gears. 11 of these have been listed, district-wise, in the adjacent table.

Stakeholders are moving ahead and have undertaken their primary research, elementary level planning, basic market research analysis, supply-demand equations, necessary investments, marketing and the complexity in undertaking such a leap forward.

SL	NGO Name	Name of the FPO	District
1	AASA Tc	Kalinga krushaka producer company Limited	Jajpur
2	RS Charitable Trust	Subhadra Farmer Association	Khurda
3	Santoshi foundation	Santoshi Foundation	Mayurbhanj
4	Yard	Biswabasu Farmer Producer Company	Nayagarh
5	JSS	Jagannath Seba Sansta	Balasore
6	SPARSH	Sparsha FPO Company Mukulishi	Balasore
7	Antodaya	Antodaya Krushi Bikash Sangathana	Kalahandi
8	GUIDE	GUIDE Farmer Producer Organization	Ganjam
9	Maa santoshi Foundation	Maa Santoshi Foundation	Jajpur
10	Anchalika Mahila Sisu	Maa Biraja Farmer Producer Organization	Bhadrak
11	CHARM	Maa suradei Farmer Producer Organization	Kandhamal

Needless to mention, they stakeholders will still have to consider a comprehensive and a well-considered strategy, duly vetted by the cooperatives, securing their buy-in, duly piloted and cautiously rolled out with clear and realistic goals, monitored and measured at each milestone.

ATAL-RPL IS CHANGING LIVES

Cases Studies

GHASIRAM PADHAN

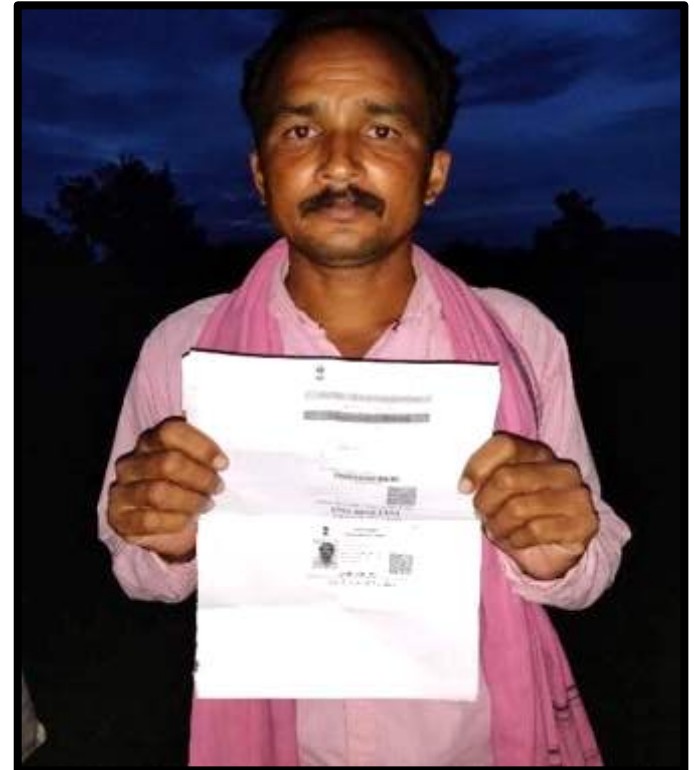
Solanaceous Crop Cultivator, Gaiselet, Bargarh

“Villagers in Gaiselet are increasingly taking up vegetable farming and are reaping handsome profits from the venture. I, a successful vegetable farmer, am cultivating vegetables such as tomatoes, cabbage and brinjals. My farming methods have changed since I received RPL training from Gram Tarang.

I learnt pest management, replacing the use of pesticides & fertilizers with organic material for longer fertility of soil also for higher yield. My investment in these external outputs reduced by 50% and yield increased from about 70 quintals to 95 quintals. By learning this, I now wish to reduce chemical fertilizers and pesticides usage to zero.

My production and income has gone up from Rs 56,000 to Rs 76,000 from selling vegetables in the market. Along with it, I earned about 60,000 from selling paddy.

As a result, I am now able to repay the bank-loan, earn enough for my family's daily needs, and pay children's school tuition fee. Even more, I am saving money for my children future.”



NIRMALA BARIK

Mushroom Grower, Inchudi, Balasore

“After my marriage I found it too difficult to meet family expenses with the meagre income of my husband. I am now 44, my son is pursuing graduation, daughter is in 10th. I badly needed to increase my financial independence and additional source of income.

I realised that the paddy-straw mushroom is tasty, has good demand in the market. But, I hardly have any land. So, initially, with the help of my husband, I started mushroom cultivation with a small investment. I purchased seeds for 15 beds of mushroom and produced 15 kgs in 2018-19. Seeing that just by cultivating 9 beds, I could earn 2,500-3,500 per month, I underwent RPL training by Gram Tarang as a ‘mushroom cultivator’.

Enthused by the success, I am now committed to setting up around 100 such beds, in a multi-stack level arrangement. Logic is simple. If we spend Re 1, we get Rs 3 in return. So, there is actually no need for us to go outside for work. There is a huge market for this variety and the produce can be sent outside the district after proper packaging.”



ANI GAMANGO

Citrus Grower, Gumma, Gajapati

"I am 60 and own three acres of land in Gumma village, Gajapati district.

I harvest 10-15 Quintals of paddy, for household consumption as the number of dependents in my family is more than five. Along with paddy, I have two lemon trees, that give me a yield of 50kg.

After undergoing RPL training as Citrus Grower by Gram Tarang, I learnt spacing between the plants, harvesting, post-harvest management and marketing methods.

I used to sell lemons at the rate of Rs 4 per kg whereas post-training, I able to sell them at Rs. 40. My saving has increased and helps me meet food/groceries, children's education and family's health expenses. In contrast to other cash crops where requirements are high as input cost, farmers are going organic. Average farmers yield inclined to 1,000-2,000 fruits per tree (around 50 kg per tree).

Lemon is one of the best cash crops and generates revenue every week. An all-round-the-year crop, May till July is even better."



DHANESWAR POD

Pulses Cultivator, Badipalli, Bargarh

"I am 32, a farmer of Badipalli village in Bargarh district. I have gradually been shifting from paddy to non-paddy crops, such as pulses, for cultivation and better returns.

Owing to RPL training and encouraged by higher returns, I am looking forward to cultivating pulses, post paddy on two acres of land. Pulses, including 'moong', 'biri' and 'arhar' and other varieties yields per acre on an average 50kg, 30kg and 70kg respectively. The mixed cropping of 'arhar' and 'Mung' is being practiced in Badipalli block. Cultivation of pulses requires less water compared to paddy, and can be easily grown as a second crop.

Post training my production has increased to 95kg, 65kg and 90kg and my income increased from Rs 10,000 to Rs 20,000. I am quite optimistic that the additional income will help in my children's education. Subsequently, I wish to sell to Farmer Producer Organization for better market linkages."



ARJUN SAHOO

Solanaceous Cultivator, Kishorenagar, Angul

"I have been doing my best with available resources, in the face of unpredictable rain and climate changing. I grow vegetables like pointed gourd, brinjals, cow pea and cucumber. My farming methods are more systematic than others.

I continue to farm, even as many of my fellow farmers feel that farming is not profitable any more, due to pests and diseases, stagnation in crop yields, shortage of labour and high costs in involved in cultivation.

Before training I used to receive a yield of 2-2.5 quintals (qtls) from pointed gourd, 1.5-2 qtls from brinjal, 50-60 kg from cow pea, and 50-60kg from cucumber. I learnt organic farming practices during RPL training, and went ahead realising that this is the best way and environment friendly as well.

As a result, my yield has almost doubled to 4 qtls of pointed gourd, 3.5 qtl of brinjal, 80 kg of cow pea and 80kg of cucumber. By selling this additional produce, I got Rs 31,500, where as earlier I used to earn Rs 20,000. There is no more dependence on expensive chemical fertilizers, reduces input costs and protects my soil... in the long run."



SHANKAR PATEL

Solanaceous Cultivator, Poragan, Kalahandi

"I am traditionally a Paddy farmer. I underwent RPL training as a 'solanaceous crop grower'. The learnings gained therein helped me experiment with my vegetable farming.

Solanaceous and other vegetables like cabbage, cauliflower, brinjal, okra, bitter-gourd, and cow-peas are growing in the farm successfully with latest farming methods, intelligent utilization of resources.

From the training I gained knowledge about various insecticides, pesticides, fertilizer application management, and how to reduce post-harvest losses by preserving the surplus for long time. I also acquired information regarding grading, sorting and marketing of vegetables.

Post training, my yield of cauliflower increased from 90 quintals to 120 quintals, cabbage from 1000 piece to 1150 pieces, brinjals from 20 to 30 quintals, and bitter gourd from 300 kg to 600 kg. By selling my vegetable produces I am able to earn Rs 90,000 in a span of 90 days."



ANNEXURE 1: LIST OF TABLES

List of Tables (1)

RESPONDENT PROFILE

a. Respondents by Sex (M/F/LGBTQ)

M	F	LGBTQ
1655	1702	0

b. Respondents by Age

18-30	31-45	46-60	>61
560	1454	1099	244

c. Respondents by Religion

Hindu	Muslim	Christian	Jain Or Buddhist
3189	9	159	0

d. Respondents by Caste/Class

General	SC	ST	OBC	Others
848	499	321	1688	1

e. Respondents by Marital Status

Married	Unmarried	Divorced	Widow	Widower
3152	122	3	71	9

f. Respondents by Dependents

One	Two	Three	Four	>Five
138	440	816	986	977

g. Respondents by Education Status

Illiterate	Primary (till 5 th)	Secondary(6 th -10 th)	Hr. Sec(11 th -12 th)	Graduate/Dip
676	1106	1276	218	81

h. Respondents by BPL category

Yes	No
2892	465

i. Respondents by Land Ownership

>1 Acre	1-2 Acres	2-4 Acres	>4 Acres	Landless
1563	940	299	148	407

ASSESSMENT QUESTIONS

2.1) What Was the reason for joining RPL skills programme?

Certification	43
Learning Better Farming Methods	194
Increasing Productivity	103
Increasing Income	145
Agri-Business	14
Improve skills	282
All Of These	2576

2.2) Which skill/trade did you choose?

Job Role	No of Participant (As per the sample size)
Chillies Cultivator	69
Citrus fruit grower	173
Cotton Cultivator	69
Floriculturist	184
Maize cultivator	108
Mango Grower	223
Mushroom grower	434
Organic Grower	649
Paddy Cultivator	124
Pulses Cultivator	151
Quality seeds grower	98
Solanaceous Crop Cultivator	518
Tuber crop	188
Vermicompost Producer	369
Total	3357

2.3) Did you face any particular issue or challenges faced during training programme?

Yes	3
No	3354
Total	3357

2.4) If yes, what were the issues or challenges faced during training programme

Inadequate Teaching Learning	
Short Duration of Training	1
Inadequate Facilities During training	
Irregular Attendance of Trainers	
Indifferent Attitude of Trainers	
Inadequate Conditions, Bad Tools and Equipment	
Lack of Support from Family/Community	2
Other (Specify)	

2.5) Do you believe that the training you received has positively impact your income

Yes	No	Total
3355	2	3357

2.6) Did you receive RPL certificate at the end of the training programme?

Yes	No	Total
3254	123	3357

3.1) What has the traditionally been your PRIMARY Crop?

Before		After	
Citrus	1	Citrus	1
Cotton	5	Cotton	5
Floriculture	3	Floriculture	4
Maize	22	Maize	22
Mango	4	Mango	4
Mushroom	7	Mushroom	17
None	183	None	171
Paddy	2993	Paddy	2993
Paddy and Maize	43	Paddy and Maize	43
Pulses	5	Pulses	5
Pulses and Vegetables	5	Pulses and Vegetables	5
Solanaceous	12	Solanaceous	12
Tuber Crop	26	Tuber Crop	26
Vegetables	48	Vegetables	48
Vegetables and Mushroom	0	Vegetables and Mushroom	1
Total	3357	Total	3357

3.2) How much has been the average production over the years for the same net sown area (at least last 3years)?

Production	Before	After	Change in %
<1 Qntls	352	317	-9.94%
1-4 Qntls	972	835	-14.09%
4-8 Qntls	739	864	16.91%
>8 Qntls	1113	1169	5.03%
None	181	172	-4.97%
Total	3176	3185	-0.52%

*Note: Under 'Primary crop', survey found that 181 farmers did not undertake any food crop cultivation as owners' tenants or share farming prior to RPL training. 171 of them did not take any activity after the training. Thus, Economic impact assessment could not undertake for this 'None' category.

3.3) How much percent of the production did you keep for your household consumption?

Consumption	Before	After	Change in %
All 100 %	1065	950	-10.80%
80-100 %	382	386	1.05%
60-80 %	403	478	18.61%
40-60 %	629	571	-9.22%
<40 %	697	801	14.92%
None	181	171	-5.52%
Total	3176	3186	2.91%

3.4) If less than 100% of production consumed by the HH, how much did you sell in the local village market (haat), or to local businessman?

Sell %	Before	After	Change in %
Upto 10 %	1133	1004	-11.39%
10-20 %	374	379	1.34%
20-30 %	216	263	21.76%
30-40 %	594	539	-9.26%
40 %+ -	859	1001	16.53%
None	181	171	-5.52%
Total	3176	3186	3.80%

3.5) What has been the average income from the sale of your primary crop in the market (in Rs)?

Income	Before	After	Change in %
< 10 K	1948	1652	-15.20%
10-20 K	751	872	16.11%
20-30 K	240	387	61.25%
30-40 K	153	168	9.80%
>40 K	84	107	27.38%
None	181	171	-5.52%
Total	3176	3186	19.87%

3.6) What has the traditionally been your secondary Crop?

Before		After	
Chillies	24	Chillies	28
Citrus	117	Citrus	140
Cotton	13	Cotton	13
Floriculture	79	Floriculture	118
Maize	37	Maize	52
Mango	166	Mango	170
Mixed	1396	Mixed	790
Mushroom	78	Mushroom	302
None	614	Organic Pulses	151
Organic Vegetables	200	Organic Vegetables	224
Paddy	42	Paddy	42
Pulses	99	Pulses	105
Solanaceous	301	Solanaceous	448
Tuber	56	Tuber	65
Vermi Mixed	135	Vermi Mixed	226
		None	483
Total	3357	Total	3357

**Mixed Includes crops such as vegetables, pulses, oilseeds like sunflower and groundnut, betel leaf, fruits, sugarcane, maize, millet, mushroom

3.2) How much has been the average production over the years for the same net sown area (at least last 3years)?

Production	Before	After	Change in %
<1 Qntls	1415	1201	-15.12%
1-4 Qntls	778	875	12.47%
4-8 Qntls	250	452	80.80%
>8 Qntls	300	346	15.33%
None	614	483	-21.34%
Total	2743	2874	23.37%

*Note: Under 'Primary crop', survey found that 614 farmers did not undertake any food crop cultivation as owners' tenants or share farming prior to RPL training. 483 of them did not take any activity after the training. Thus, Economic impact assessment could not undertake for this 'None' category.

3.3) How much percent of the production did you keep for your household consumption?

Consumption	Before	After	Change in %
All 100 %	996	914	-8.23%
80-100 %	365	353	-3.29%
60-80 %	252	352	39.68%
40-60 %	470	503	7.02%
<40 %	660	752	13.94%
None	614	483	-21.34%
Total	2743	2874	9.82%

3.4) If less than 100% of production consumed by the HH, how much did you sell in the local village market (haat), or to local businessman?

Sell %	Before	After	Change in %
Upto 10 %	1059	966	-8.78%
10-20 %	327	338	3.36%
20-30 %	188	152	-19.15%
30-40 %	337	542	60.83%
40 %+ -	832	876	5.29%
None	614	483	-21.34%
Total	2743	2874	8.31%

3.5) What has been the average income from the sale of your primary crop in the market (in Rs)?

Income	Before	After	Change in %
< 10 K	1807	1627	-9.96%
10-20 K	562	625	11.21%
20-30 K	188	341	81.38%
30-40 K	76	144	89.47%
>40 K	110	137	24.55%
None	614	483	-21.34%
Total	2743	2874	39.33%

3.11) Has RPL skills training programme in any way improved your quality of life?

Totally	Partly	No
1401	1468	488

3.11) If 'totally' or 'partly', in what way (select all the apply)

All	2042
Improved Health/Well Being	106
Improved Quality Of Life Generally	129
Improved Skills	842
Increased Financial Independence	223
Increased Self Esteem	15

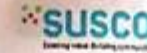
3.12) Where are you spending your additional income on (or plan to spend based on enhanced productivity/income estimates)

food /groceries	241
children's education	402
family medicines	76
Clothes	34
household goods	273
household repairs	95
toilet and sanitation	73
saving accounts	387
repayment of loans	10
Others	160
All of the above	1606

3.13) Have you brought any movable or immovable assets from the additional income (or are planning buy based on enhanced productivity or income estimates)

Movable Assets		Immovable Assets	
Agri-Tools	4	House	3
Bicycle	9	House, Agricultural Land	30
Bike	10	No Response	3324
Dairy Animals	9	Grand Total	3357
Furniture	1		
Gold	5		
Household goods	2		
Jewellery	1		
Livestock	1		
Mobile	23		
Mobile, Bicycle	4		
Mobile, TV	1		
No Response	3267		
Sewing Machine	1		
Tv	2		
Utensils	1		
Mobile, Bike	1		
Bicycle, Bike	7		
Bike, TV	1		
Agri-Tools, Bike, Livestock, Mobile	1		
Agri-Tools, Mobile	2		
Bike, Mobile	2		
Ceiling Fan	1		
Refrigerator	1		
Grand Total	3357		

ANNEXURE 2: SAMPLE OF FILLED QUESTIONNAIRE



RPL ECONOMIC IMPACT ASSESSMENT SURVEY QUESTIONNAIRE

‘ପୂର୍ବ ଜ୍ଞାନ କୌଶଳ ମାନ୍ୟତା’ ପ୍ରକଳ୍ପର ଅର୍ଥନୈତିକ ସର୍ବେକ୍ଷଣର ପ୍ରଶ୍ନାବଳୀ

Questionnaire No: ପ୍ରଶ୍ନାବଳୀ ସଂଖ୍ୟା:	18	Date: ତାରିଖ:	26/09/19	Place: ସ୍ଥାନ:	Baleswar
NGO Name (ଏନ୍.ଡି.ଓ ନାମ):	PMKR, Gopalpur	Centre Name (କେନ୍ଦ୍ର ନାମ):	Inchudi, Gopalpur		

RESPONDENT PROFILE (ପ୍ରତିବାଦୀ ପ୍ରୋଫାଇଲ):

#	Name & Mobile NO. (ନାମ ଏବଂ ମୋବାଇଲ୍ ନଂ):	Nirmala Barik, Adhar- 4567 7465 9495, Ph- 977319040				
1	Sex (ଲିଙ୍ଗ)	1. Male (ପୁରୁଷ)	2. Female (ମହିଳା) ✓	3. LGBTQ (ଅନ୍ୟ)		
2	Age (ବୟସ)	1. 18-30 (୧୮ - ୩୦)	2. 31-45 (୩୧ - ୪୫) ✓	3. 46-60 (୪୬-୬୦)	3. >61 (>୬୧)	
3	Religion (ଧର୍ମ)	1. Hindu (ହିନ୍ଦୁ) ✓	2. Muslim (ମୁସଲିମ)	3. Christian (ଖ୍ରୀଷ୍ଟିଆନ)	4. Jain or Buddhist (ଜୈନ ଏବଂ ବୁଦ୍ଧ)	5. Others (ଅନ୍ୟାନ୍ୟ)
4	Caste (କାଷ୍ଠି)	1. General (ସାଧାରଣ)	2. OBC (ଓସିଆ ବର୍ଗ) ✓	3. SC (ସ୍ୱୟଂସେବକ କାଷ୍ଠି)	4. ST (ସ୍ୱୟଂସେବକ ଜନକାଷ୍ଠି)	5. Others (ଅନ୍ୟାନ୍ୟ)
5	Marital Status (ବୈବାହିକ ସ୍ଥିତି)	1. Married (ବିବାହିତ)	2. Unmarried (ଅବିବାହିତ)	3. Divorced (ଭାଙ୍ଗିପଡ଼ି ଚାଲି)	4. Widow (ବିଧବା)	5. Widower (ବିପତ୍ନୀହୀନ)
6	Dependents (ନିର୍ଭର ସଦସ୍ୟ)	1. One (ଓନ୍)	2. Two (ଟୁ)	3. Three (ଥ୍ରି)	4. Four (ଫୋର୍) ✓	5. >Five (>ଫାଇଭ୍)
7	Education Status (ଶିକ୍ଷାବଳି ସ୍ଥିତି)	1. Illiterate (ନିରାକ୍ଷର)	2. Primary (ପ୍ରାଥମିକ) (୫-୮ ଉପର)	3. Secondary (ସେଣ୍ଡେରୀ) (୯-୧୦) (ମଧ୍ୟମିକ) (୯-୧୦)	4. Hr. Sec (11-12) (ଉଚ୍ଚ ମଧ୍ୟମିକ) (୧୧-୧୨)	5. Graduate/Dip (ଗ୍ରାଜୁଏଟ/ଡିପ୍ଲୋମା)
8	BPL Card Holder (ବି.ପି.ଏଲ୍. କାର୍ଡ୍ ଧାରୀ)	1. Yes (ହଁ) ✓	2. No (ନା)			
9	Land ownership (ଜମିର ଓସିମାଣ)	1. <1 Acre (<୧ ଏକର)	2. 1-2 Acres (୧-୨ ଏକର)	3. 2-4 Acres (୨-୪ ଏକର)	4. >4 Acres (୪. >୪ ଏକର)	5. Landless (ଭୂମିହୀନ)

- 1 Place must include name of Panchayat/Municipal area, Block and District
- 2 Surveyor needs to tick the relevant sections
- 3 Any questionnaire without mobile number will be invalid. It's key identity since linked with Aadhar.
- 4 Lesbian, Gay, Bisexual, Transgender, Queer
- 5 Others can include atheist, agnostic, animistic/shaman (believing in spirits, worshipping forces of nature), etc.
- 6 Dependents can include spouse, children, parents and relatives
- 7 Illiterate means one who cannot read or write
- 8 If one has left education before completing 10th, then respondent to be marked under 'Primary'. Similarly, for Hr. Sec and Graduate/Diploma.

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II. WHY RPL SKILLS TRAINING (କାହିଁକି ଆର୍.ପି.ଏଲ୍ କୌଶଳ ତାଲିମ୍) ?

2.1. What was the reason for joining RPL Skills programme (ଆର୍.ପି.ଏଲ୍ ରେ ଅଂଶ ଗ୍ରହଣ କରିବାର କାରଣ) ?

1. Certification (ପ୍ରମାଣପତ୍ର)	2. Learning better farming methods (ଜରୁତ କୃଷି ପ୍ରଣାଳୀ ପ୍ରଶିକ୍ଷଣ)	3. Increasing productivity (ଉତ୍ପାଦନ ବୃଦ୍ଧି)	4. Increasing Income (ଆୟ ବୃଦ୍ଧି)	5. Agri - business (କୃଷି ବ୍ୟବସାୟ)	6. All of these (ସବୁର ଉତ୍ତର ସମସ୍ତ)	7. Other reason (ଅନ୍ୟ କାରଣ)
					✓	

2.2. Which skill/trade did you choose (LIST TO COME FROM GT) କେଉଁଥିରେ ଅଂଶ ଗ୍ରହଣ କରିଥିଲେ ?

Mushroom Grower.

2.3. Did you face any particular issues/challenges during the training (ତାଲିମ୍ ସମୟରେ କୌଣସି ଅସୁବିଧାର ସମ୍ମୁଖୀନ ହୋଇଛନ୍ତି କି) ?

1. Yes (ହଁ)		2. No (ନାଁ)	✓
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2.4. If Yes, what were the issues or challenges faced during training programme (ଯଦି ହଁ ତେବେ କେଉଁ ପ୍ରକାର ଅସୁବିଧା) ?

1. Inadequate teaching learning (ନିମ୍ନ ମାନର ତାଲିମ୍)	2. Short duration of training (କମ୍ ସମୟରେ ତାଲିମ୍)	3. Inadequate facilities during training (ନିମ୍ନ ମାନର ସୁବିଧା)	4. Irregular attendance of trainers (ବୈରାଗ୍ୟମୟ ପ୍ରାୟ ସମୟର ଅନୁପସ୍ଥିତି)	5. Indifferent attitude of trainers (ବୈରାଗ୍ୟମୟ ଉପାଦେୟତା ଦେଖାଦେବା)	6. Inadequate conditions, bad tools and equipment (ନିମ୍ନ ମାନର ଚାଷ)	7. Lack of support from family/community (ପରିବାର/ସମାଜର ସହାୟତା ପ୍ରାପ୍ତ)	8. Other (specify) ଅନ୍ୟ

2.5. Do you believe that the training you received has positively impacted your income ପାଇଥିବା ତାଲିମ୍ ଆପଣଙ୍କ ଆୟରେ ସହାୟକ ହେଉଛି କି ?

1. Yes (ହଁ)	✓	2. No (ନାଁ)		2. Not sure / ନିଶ୍ଚିତ ନୁହେଁ	
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2.6. Did you receive RPL Certificate at the end of the training programme?

ତାଲିମ୍ ଶେଷରେ ଆପଣ ଆର୍.ପି.ଏଲ୍ ପ୍ରମାଣପତ୍ର ପାଇଛନ୍ତି କି ?

1. Yes (ହଁ)	✓	2. No (ନାଁ)	
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RPL ECONOMIC IMPACT ASSESSMENT SURVEY QUESTIONNAIRE

2



III. BEFORE /AFTER RPL SKILLS TRAINING. (ଆର.ପି.ଏଲ ଟ୍ରେନିଙ୍ଗ ପୂର୍ବରୁ/ପରେ)

3.1. What has traditionally been your **PRIMARY** crop (ପ୍ରାଥମିକ ଫସଲ ଭାବରେ କେଉଁଟିକୁ ଚିହ୍ନଟ କରିଥିଲେ) ?

Before (ପୂର୍ବ ସମୟ)	After (ପର ସମୟ)
Paddy	Paddy

3.2. How much has been the average production over the years for the same net sown area (at least last 3 years) ବାର୍ଷିକ ଉତ୍ପାଦିତ ଫସଲର ହାରାହାରି ପରିମାଣ (ଶେଷ ତିନି ବର୍ଷର) ?

Before (ପୂର୍ବ ସମୟ)					After (ପର ସମୟ)				
1. <1 Qtls <୧ ଡିଆଲ	2. 1-4 Qtls ୧-୪ ଡିଆଲ	3. 4-8 Qtls ୪-୮ ଡିଆଲ	4. >8 Qtls >୮ ଡିଆଲ	5. None —	1. <1 Qtls <୧ ଡିଆଲ	2. 1-4 Qtls ୧-୪ ଡିଆଲ	3. 4-8 Qtls ୪-୮ ଡିଆଲ	4. >8 Qtls >୮ ଡିଆଲ	5. None —
	✓					✓			

3 qtl.

3.3 How much percent of the production did you keep for household(HH) consumption (ଶତକଡ଼ା କେତେ ପରିମାଣର ଶସ୍ୟ ନିଜସ୍ବ ବ୍ୟବହାରରେ ଉପଯୋଗ କରିଛନ୍ତି) ?

Before (ପୂର୍ବ ସମୟ)					After (ପର ସମୟ)				
1. All/100% ସମସ୍ତ/୧୦୦%	2. 80-100% ୮୦-୧୦୦%	3. 60-80% ୬୦-୮୦%	4. 40-60% ୪୦-୬୦%	5. <40 <୪୦	1. All/100% ସମସ୍ତ/୧୦୦%	2. 80-100% ୮୦-୧୦୦%	3. 60-80% ୬୦-୮୦%	4. 40-60% ୪୦-୬୦%	5. <40 <୪୦
✓					✓				

3.4. If less than 100% production consumed by the HH, how much did you sell in the local village market (haat), or to local businessman?

ଯଦି ୧୦୦% ନିଜସ୍ବ ବ୍ୟବହାରରେ ଉପଯୋଗ କରିଛନ୍ତି ତାହାହେଲେ ନିଜସ୍ବ ମାର୍ଜେଟରେ କେତେ ବିକ୍ରି କରିଛନ୍ତି ?

Before (ପୂର୍ବ ସମୟ)					After (ପର ସମୟ)				
1. Upto 10% ୧୦% ପର୍ଯ୍ୟନ୍ତ	2. 10-20% ୧୦-୨୦%	3. 20-30% ୨୦-୩୦%	4. 30-40% ୩୦-୪୦%	5. 40%+/- ୪୦%+/-	1. Upto 10% ୧୦% ପର୍ଯ୍ୟନ୍ତ	2. 10-20% ୧୦-୨୦%	3. 20-30% ୨୦-୩୦%	4. 30-40% ୩୦-୪୦%	5. 40%+/- ୪୦%+/-
✓					✓				

3.5. What has been the average income from sale of your primary crop in the market (In Rs.) ପ୍ରାଥମିକ ଶସ୍ୟ ବିକ୍ରୟ ପରେ ହାରାହାରି ଆୟ କେତେ ?

Before (ପୂର୍ବ ସମୟ)					After (ପର ସମୟ)				
1. <10 k <୧୦ ହଜାର	2. 10-20 k ୧୦-୨୦ ହଜାର	3. 20-30 k ୨୦-୩୦ ହଜାର	4. 30-40 k ୩୦-୪୦ ହଜାର	5. >40 k >୪୦ ହଜାର	1. <10 k <୧୦ ହଜାର	2. 10-20 k ୧୦-୨୦ ହଜାର	3. 20-30 k ୨୦-୩୦ ହଜାର	4. 30-40 k ୩୦-୪୦ ହଜାର	5. >40 k >୪୦ ହଜାର
✓					✓				

* 1 Quintal = 100 Kilograms



3.6. What has traditionally been your Secondary crop (ପୂର୍ବରୁ ଅମଳ କରୁଥିବା ଦ୍ୱିତୀୟ ଫସଲର ନାମ)?

Before (ପୂର୍ବ ସମୟ)	After (ପର ସମୟ)
Vegetables	Mushroom & vegetables

3.7. How much has been the average production over the years for the same net sown area (atleast last 3 years) ବାର୍ଷିକ ଉତ୍ପାଦିତ ଫସଲର ପରିମାଣ (ତିନି ବର୍ଷ ପର୍ଯ୍ୟନ୍ତ) ?

Before (ପୂର୍ବ ସମୟ)					After (ପର ସମୟ)				
1. <1 Qtls <୧ ଡିଓଇଲ	2. 1-4 Qtls ୧-୪ ଡିଓଇଲ	3. 4-8 Qtls ୪-୮ ଡିଓଇଲ	4. >8 Qtls >୮ ଡିଓଇଲ	5. None —	1. <1 Qtls <୧ ଡିଓଇଲ	2. 1-4 Qtls ୧-୪ ଡିଓଇଲ	3. 4-8 Qtls ୪-୮ ଡିଓଇଲ	4. >8 Qtls >୮ ଡିଓଇଲ	5. None —
	✓					✓			

3.8. How much of the average production did you keep for household (HH) consumption (ହାରାହାରି କେତେ ପରିମାଣର ଶାସ୍ୟ ନିଜସ୍ୱ ବ୍ୟବହାରରେ ଉପଯୋଗ କରିଛନ୍ତି) ?

Before (ପୂର୍ବ ସମୟ)					After (ପର ସମୟ)				
1. All/100% ସମସ୍ତ ୧୦୦%	2. 80-100% ୮୦-୧୦୦%	3. 60-80% ୬୦-୮୦%	4. 40-60% ୪୦-୬୦%	5. <40 <୪୦	1. All/100% ସମସ୍ତ ୧୦୦%	2. 80-100% ୮୦-୧୦୦%	3. 60-80% ୬୦-୮୦%	4. 40-60% ୪୦-୬୦%	5. <40 <୪୦
				✓					✓

3.9. If less than 100% production consumed by the HH, how much did you sell in the local village market (haat), or to local businessman?

ଯଦି ୧୦୦% ନିଜସ୍ୱ ବ୍ୟବହାରରେ ଉପଯୋଗ କରିନାହାନ୍ତି ତାହାହେଲେ ନିଜସ୍ୱ ମାର୍ଜେଟରେ କେତେ ବିକ୍ରି କରିଛନ୍ତି ?

Before (ପୂର୍ବ ସମୟ)					After (ପର ସମୟ)				
1. Upto 10% ୧୦% ପର୍ଯ୍ୟନ୍ତ	2. 10-20% ୧୦-୨୦%	3. 20-30% ୨୦-୩୦%	4. 30-40% ୩୦-୪୦%	5. 40%+/- ୪୦%+/-	1. Upto 10% ୧୦% ପର୍ଯ୍ୟନ୍ତ	2. 10-20% ୧୦-୨୦%	3. 20-30% ୨୦-୩୦%	4. 30-40% ୩୦-୪୦%	5. 40%+/- ୪୦%+/-
				✓					✓

3.10. What has been the average income from sale of your secondary crop in the market (In Rs.) ଦ୍ୱିତୀୟ ଫସଲ ବିକ୍ରି ପରେ ବାର୍ଷିକ ହାରାହାରି ଆୟ କେତେ ?

Before (ପୂର୍ବ ସମୟ)					After (ପର ସମୟ)				
1. <10 k <୧୦ ହଜାର	2. 10-20 k ୧୦-୨୦ ହଜାର	3. 20-30 k ୨୦-୩୦ ହଜାର	4. 30-40 k ୩୦-୪୦ ହଜାର	5. >40 k >୪୦ ହଜାର	1. <10 k <୧୦ ହଜାର	2. 10-20 k ୧୦-୨୦ ହଜାର	3. 20-30 k ୨୦-୩୦ ହଜାର	4. 30-40 k ୩୦-୪୦ ହଜାର	5. >40 k >୪୦ ହଜାର
		✓					✓		

* 1 Quintal = 100 Kilograms



3.11. Has RPL Skills training programme in any way improved your quality of life (ଆର.ପି.ଏଲ୍ ଡାକ୍ତାମ୍ ଆପଣଙ୍କ ଜୀବନରେ ପରିବର୍ତ୍ତନ ଆଣିଛି କି) ?

1. Totally (ସମ୍ପୂର୍ଣ୍ଣ)	2. Partly (ଆଂଶିକ)	3. No (କେଉଁଟି କୁହନ୍ତୁ)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.11. If 'totally' or 'partly', in what way (Select All that Apply) / (ଯଦି ଆଣିଛି କିପରି) ?

1. Increased financial independence (ଆୟରେ ବୃଦ୍ଧି)	2. Improved skills (ନିଜସ୍ବ ଦକ୍ଷତା)	3. Improved health/well-being (ସ୍ବଚ୍ଛତା ବୃଦ୍ଧି)	4. Increased self-esteem (ଆତ୍ମ ସମ୍ମାନ ବୃଦ୍ଧି)	5. Improved quality of life generally (ନିଜ ଜୀବନରେ ସମ୍ବର୍ଦ୍ଧନ)	5. All (ସମସ୍ତ)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12. Where are you spending your additional income on (or plan to spend based on enhanced productivity/income estimates) / କେଉଁଠି ଆପଣ ନିଜର ଆୟକୁ ବ୍ୟୟ କରିଛନ୍ତି ?

1. Food/groceries (ଖାଦ୍ୟ ସାମଗ୍ରୀ)	<input checked="" type="checkbox"/>
2. Children's education (ପିଲାଙ୍କ ପାଠପଢ଼ା)	<input checked="" type="checkbox"/>
3. Family medicines/health (ସାମାଜିକ ସ୍ବଚ୍ଛତା)	<input checked="" type="checkbox"/>
4. Clothes (ବେଶାବେଶ)	<input checked="" type="checkbox"/>
5. Household goods (ଗୃହୋପକରଣ)	<input type="checkbox"/>
6. Household repair (ଗୃହ ମରାମତି)	<input type="checkbox"/>
7. Toilet and sanitation (ଶେଷାବସ୍ଥା ପରିଚ୍ଛନ୍ନତା)	<input type="checkbox"/>
8. Savings account (କମ୍ପାନୀ ଗୁଣ୍ଡ)	<input checked="" type="checkbox"/>
9. Repayment of loans (ଗଣି ପରିଶେଷ)	<input type="checkbox"/>
10. Others (ଅନ୍ୟାନ୍ୟ)	<input type="checkbox"/>

3.13. Have you bought any movable/immovable assets from the additional income (or are planning buy based on enhanced productivity/income estimates) (ଏହି ଅତିରିକ୍ତ ଆୟରେ ଆପଣ କିଛି ସ୍ବାସ୍ତ୍ୟ / ଅସ୍ବାସ୍ତ୍ୟ ସମ୍ପତ୍ତି କିଣିଛନ୍ତି କି) ?

Movable Assets (ଅସ୍ବାସ୍ତ୍ୟ)	Immovable Assets (ସ୍ବାସ୍ତ୍ୟ)
1	1
2	2
3	3
4	4
5	5
6. Other (specify) / ଅନ୍ୟାନ୍ୟ	6. Other (specify) / ଅନ୍ୟାନ୍ୟ

11 Movable Assets are those which can be physically moved e.g.: Agri-tools, tractor, dairy/poultry animals, Cash, Jewellery, TV, Mobile, Bicycle, Bike, Car, Fridge, Computer/Laptop, Washing Machine, Investments in banks, Insurance Policies etc.
Immovable Assets: House, Agricultural land, Non-Agricultural land, Commercial Building etc.

Feedback / ମତାମତ

Started Mushroom cultivation post-training.
15 beds → 1kg/bed in 7 days
Total production -
30 kg in 21 days.
Rs 200 / kg
Income - $30 \times 200 = \text{Rs } 6000/-$
From mushroom.

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Thank you!

We sincerely thank GTET & Centurion teams who lent their support in conducting this impact assessment. We look forward to answering any questions you may have and help finalise the report.

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