

As per ICAR's VI<sup>th</sup> Dean Committee Recommendation

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**Entrepreneurship to Agripreneurship**  
**Extension, Innovation and Rural Enterprise**  
**Development in Agriculture**

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**Entrepreneurship to Agripreneurship**  
**Extension, Innovation and Rural Enterprise**  
**Development in Agriculture**

*Authors*

**J Tamal Atab**  
**Mehazabeen A.**  
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**Dipankar Routh**



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# Dedication

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## To the Farmers of India

*whose ingenuity, resilience, and quiet entrepreneurship  
feed a nation and sustain the earth,  
and to the educators, extension workers, and researchers  
who stand beside them.*

*To our students, present and future,  
who will take these ideas from the classroom to the field,  
and build the agripreneurial enterprises  
that rural India needs.*



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## Authors' Note

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This book has been written in the conviction that India's agricultural future depends, above all else, on the quality of the men and women who choose to lead and innovate within India's agri-food system, as farmers, as enterprise founders, as cooperative managers, as extension educators, and as agricultural scientists and policy makers. Agricultural education is not merely a professional credential: it is the preparation of a generation of agripreneurs who will decide how India's land, water, and biological resources are managed; how its rural communities earn their livelihoods; how its food systems serve the nutritional needs of 1.4 billion people; and how Indian agriculture positions itself in a global economy of extraordinary complexity and consequence.

We have tried to write a book worthy of that responsibility: rigorous enough to serve as a genuine scholarly text, practical enough to guide real enterprise decisions, and Indian enough to speak to the specific institutional, ecological, and social context in which our students will live and work. Whether we have succeeded is for our readers to judge. We remain open to correction, improvement, and the continued dialogue with students, colleagues, and practitioners that makes academic work genuinely alive.

*Authors*

**J Tamal Atab**

**Mehazabeen A.**

**Vivek Vishal Giri**

**Dipankar Routh**



# Foreword

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The transformation of Indian agriculture from a subsistence-oriented activity to a dynamic, enterprise-driven sector is no longer a matter of aspiration; it is an imperative. As India navigates the complexities of a rapidly evolving rural economy, the role of entrepreneurship in agriculture has become central to achieving sustainable livelihoods, enhancing productivity, and fostering inclusive growth. It is in this context that “*Entrepreneurship to Agripreneurship: Extension, Innovation and Rural Enterprise Development in Agriculture*” emerges as both timely and necessary.

Over the past decade, the discourse on agriculture has undergone a fundamental shift. Traditional paradigms that focused primarily on production and extension have gradually expanded to include value addition, market integration, innovation ecosystems, and enterprise development. The policy environment, particularly with the advent of the National Education Policy 2020 and the recommendations of the ICAR Sixth Dean’s Committee, has placed entrepreneurship at the heart of agricultural education and practice. Yet while policy intent has been admirably clear, the availability of integrated academic resources connecting extension science with enterprise creation has remained a conspicuous gap. This book makes a serious and commendable attempt to address it.

I have spent the better part of more than one decade at the Institute of Rural Management Anand, an institution built on the conviction that management education, applied to agriculture and rural enterprise with rigour and empathy, can be among the most powerful instruments of rural transformation available to Indian society. Working with cooperative dairy programmes, FPO development initiatives, rural finance institutions, and social enterprise incubation has taught me one consistent lesson; the factor that most reliably separates rural enterprises that grow and sustain from those that founder is not capital alone, not technology alone, and not market access alone, though all three matter enormously. At the top of the list is the quality of the human being who leads the enterprise; his/her capacity to think entrepreneurially, navigate institutional complexity, build collective trust, and sustain commercial discipline while remaining genuinely committed to the communities being served. This book, in its design and ambition, is fundamentally an attempt to develop that human being.



What distinguishes this volume is its interdisciplinary architecture. By bringing together Extension Science, Development Studies, Agricultural Innovation Systems, and Entrepreneurship, the authors have deliberately moved beyond conventional disciplinary silos to present a coherent, holistic framework. This integration is not merely conceptual; it is pedagogically structured to help learners and practitioners understand agriculture as a system of opportunities rather than constraints. The book successfully bridges the often-seen divide between theory and practice, an achievement that is especially significant for students of agribusiness management and agricultural extension who must, from their very first years of professional life, navigate both worlds simultaneously.

The emphasis on “agripreneurship” as a distinct and evolving domain deserves particular recognition. Agriculture today encompasses a wide spectrum of activities, from input services and primary processing through logistics, digital platforms, and rural enterprises, that extend far beyond the farm gate. In this expanded landscape, the agripreneur plays a pivotal role as innovator, risk-taker, and change agent. The book captures this transition with both conceptual clarity and practical depth, offering readers a framework for understanding the entrepreneurial process as it actually operates within the institutional and ecological specificities of Indian agricultural systems.

Another strength of this work lies in its alignment with contemporary educational and developmental priorities. The incorporation of experiential learning elements, case studies, practicum exercises, field application questions, and real-world enterprise illustrations, reflects a mature understanding of how agricultural education must evolve to produce graduates capable of action, not merely analysis. The emphasis on learning by doing, consistent with the spirit of programmes like Student READY and Skill Enhancement Courses, is essential for nurturing entrepreneurial competencies among a generation of agricultural graduates who should be positioned as job creators rather than job seekers. In this regard, the book is as much a practical guide as it is a textbook.

The treatment of innovation in agriculture is equally compelling. From digital agriculture and agri-tech startups to sustainable natural farming models and Geographical Indication-tagged enterprises, the book captures the genuine diversity of pathways through which value can be created in rural economies. It recognises that innovation is not the exclusive property of technology but encompasses institutional arrangements, cooperative business models, and community-based enterprise approaches. This broader conception is critical in



a country like India, where agriculture is not merely an economic activity but is deeply embedded in social, cultural, and ecological contexts that any viable enterprise model must respect.

The book's treatment of Farmer-Producer Organisations, cooperatives, and collective entrepreneurship resonates especially strongly with my own work in cooperative finance and institutional development. Cooperative institutions have historically anchored India's most consequential agricultural transformations, the dairy revolution, the sugar cooperative movement, the oilseeds cooperative network, and their relevance is, if anything, growing in the current policy landscape shaped by the National Cooperative Policy 2025 and the 10,000 FPOs initiative. By situating entrepreneurship within both individual and collective frameworks, and by grounding the analysis in Ostrom's governance design principles and India's own cooperative experience, the authors provide a nuanced and institutionally sophisticated understanding of enterprise development that reflects the real conditions of Indian agriculture.

Importantly, this book reflects a forward-looking vision of agriculture that is rooted in sustainability, innovation, and inclusivity. It acknowledges the very real challenges facing the sector, climate variability, resource constraints, and market uncertainties, while simultaneously illuminating the opportunities that emerge from those challenges for prepared and entrepreneurially minded graduates. The chapters on organic enterprise, climate-smart agribusiness, women's agripreneurship, and rural marketing are not peripheral additions to a conventional management curriculum but core dimensions of what it means to build enterprises that are both commercially viable and socially purposeful.

In my experience of working with entrepreneurship ecosystems, rural enterprises, and institutional development, including through the IRMA ISEED Foundation's mandate to promote social enterprise and innovation in India's rural and cooperative sectors, I have observed consistently that the success of any initiative depends not only on access to resources but on the ability to think differently. The ability to identify opportunities where others see only problems, to innovate within constraints, and to take calculated risks in contexts of inherent uncertainty, this is what defines the entrepreneur. In agriculture, where ecological, market, and institutional uncertainties are not occasional disruptions but permanent conditions of operating, this mindset becomes not a competitive advantage but a survival necessity. This book, in many ways, is a sustained effort to cultivate precisely that mindset.



I commend the authors for their thoughtful and rigorous effort in developing this work. Their ability to synthesise diverse domains, from Schumpeter's theory of creative destruction and Ostrom's governance principles to NABARD's financing architecture and India's AgriStack digital infrastructure and ICT initiatives, into a cohesive and pedagogically structured narrative reflects both genuine academic depth and practical understanding of how agricultural education must evolve. The book is grounded in verifiable scholarship, cited with care, and illustrated with Indian enterprise cases that students will recognise from their own contexts. That combination is rarer in the agricultural education literature than it should be.

I hope that readers, whether students, educators, extension professionals, or policy stakeholders, will find this book both insightful and inspiring. More than that, I hope it will encourage them to engage with Indian agriculture not merely as a sector of production to be managed but as a vibrant, complex, and profoundly consequential space for innovation, enterprise, and rural transformation. The students who study from these pages are the next generation of agripreneurs that India's rural economy needs and deserves. If this book equips even a fraction of them with the clarity, confidence, and institutional knowledge to build viable and inclusive enterprises in their home districts, it will have made a contribution of which both its authors and its readers can be genuinely proud.

**Prof. Rakesh Arrawatia**

*Professor, Institute of Rural Management Anand (IRMA)*

*Dean, School of Cooperative Banking and Finance  
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*MD & CEO, IRMA ISEED Foundation*

*Tribhuvan Sahkari University*

*Anand, Gujarat*

*April, 2026*

# Preface

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*“The carrying out of new combinations we call ‘enterprise’; the individuals whose function it is to carry them out we call ‘entrepreneurs.’”*

— Joseph A. Schumpeter, *The Theory of Economic Development* (1934, p. 74)

## I. The Agripreneurial Moment in Indian Agriculture

Indian agriculture stands at an extraordinary inflexion point. After seven decades of sustained agricultural transformation, from a food-deficit nation at independence to a net agricultural exporter contributing over Rs. 4 lakh crore annually to the national economy, India’s agri-food system now confronts a new set of challenges: the persistent gap between farm productivity and farmer income; the nutritional transition driving urban consumer demand toward high-value horticulture, dairy, and processed foods; the accelerating digital transformation creating an entirely new information and market infrastructure for agriculture; and the climate crisis destabilising the ecological foundations on which agricultural productivity depends. These challenges are also opportunities of extraordinary magnitude for the new generation of educated, entrepreneurially oriented agricultural graduates, who are the primary audience of this book.

Chand (2017), in his analysis of the pathway to doubling farmers’ income for the NITI Aayog, identified seven structural drivers of farm household income improvement: productivity improvement; resource use efficiency; higher crop intensity; shift to high-value commodities; improvement in price realisation; better market linkage; and non-farm income diversification. Every one of these seven drivers is, at its core, an agripreneurial challenge, requiring not merely better farming practice but better enterprise thinking: the capacity to identify and evaluate opportunities, mobilise resources, manage risk, build market relationships, and create and distribute value in a complex and rapidly changing agricultural economy. This is the fundamental premise on which this book rests: that the transformation of Indian agriculture urgently required is, at its heart, an entrepreneurial transformation, and that agricultural education has a central responsibility to equip the next generation of graduates with the enterprise capabilities to drive it.



The World Bank's World Development Report 2008 (World Bank, 2007) placed agricultural entrepreneurship at the centre of the development challenge for agrarian economies, arguing that the most powerful driver of agricultural transformation is not government investment alone but the growth of a commercially dynamic agribusiness sector that connects smallholder farmers to markets, technologies, and value chain relationships. India's FPO movement, agri-tech startup ecosystem, organic enterprise sector, and digital market platforms each validate this argument, demonstrating that agripreneurial innovation can create value for farmers, consumers, and investors simultaneously when supported by appropriate institutional frameworks and competent entrepreneurial leadership.

## **II. Rationale for This Book**

This book was conceived in response to a specific and urgent institutional mandate: the Sixth Dean's Committee of the Indian Council of Agricultural Research (ICAR SDC-6, 2024), which revised the undergraduate curriculum for B.Sc. (Hons.) Agribusiness Management and B.Sc. (Hons.) Agriculture to place entrepreneurship, innovation, digital agriculture, and agripreneurial enterprise development at the centre of a reformed, competency-based curriculum explicitly aligned with the National Education Policy 2020 (Government of India, 2020). The SDC-6 course 'Entrepreneurship to Agripreneurship: Extension, Innovation and Rural Enterprise Development in Agriculture' is among the most ambitious curriculum design achievements in Indian agricultural education: a course spanning entrepreneurship theory, agricultural extension, innovation systems, financial management, digital technology, value chains, cooperative organisation, sustainable farming, intellectual property, and market intelligence within a single integrated framework.

Most available agribusiness management texts are too narrowly focused on specific functional areas or are written for large-scale commercial agribusiness rather than for the smallholder-dominated, institutionally complex, and policy-sensitive environment of Indian agriculture. General entrepreneurship textbooks, while theoretically valuable, are systematically ignorant of the specific institutional actors, policy instruments, and enterprise forms, cooperatives, FPOs, SHG enterprises, agri-tech startups, and natural farming enterprises, that constitute India's agripreneurship landscape. This book is designed to fill that gap: not a general management text applied to agriculture, nor an agricultural economics text decorated with entrepreneurship vocabulary, but an integrated, India-grounded, theory-informed, and practice-oriented textbook that takes the SDC-6 curriculum as its organising framework.



### III. Key Concept: Agripreneurship

Before presenting the book's structure, it is useful to define the central concept that organises the entire text. Entrepreneurship, as Schumpeter (1934) conceptualised it, is the process of 'creative destruction', the introduction of new combinations of means of production (new products, new processes, new markets, new sources of supply, new organisational forms) that disrupts established equilibria and generates new sources of economic value. Drucker (1985), in his practical elaboration of Schumpeter's framework, defined entrepreneurship as purposeful, organised activity focused on the systematic search for change and the exploitation of change as an opportunity, emphasising that entrepreneurship is not primarily about personality traits but about practice: capabilities that can be learned, developed, and institutionally supported.

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*Agripreneurship, as used throughout this book, refers to the practice of entrepreneurship within and across agricultural and agri-food systems, the identification and exploitation of commercial opportunities in agricultural production, processing, marketing, extension services, and agri-technology; the mobilisation of financial, human, and institutional resources to create viable agricultural enterprises; and the management of these enterprises to generate value for their owners, their farmer-member producers, their consumer markets, and the rural communities in which they operate. Agripreneurship is simultaneously a commercial practice, a development instrument, and an innovation mechanism.*

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Rogers (2003), whose diffusion of innovations framework has shaped decades of agricultural extension practice, distinguished between the individual innovator and the institutional environment that enables or constrains the spread of innovation through a social system. This book applies that distinction at the enterprise level: while individual entrepreneurial capability is necessary, it is not sufficient. The institutional environment, encompassing financial markets, cooperative law, IPR systems, digital infrastructure, extension networks, government schemes, and market platforms, is equally critical. This book therefore, addresses both dimensions: developing the agripreneur's individual knowledge and analytical capability, and mapping the institutional landscape within which that capability must operate.

### IV. Structure and Organisation of the Book

The book is organised into seventeen chapters spanning five thematic clusters, each aligned with the SDC-6 curriculum's major course units. The

chapter structure is designed to be read sequentially, with each chapter building on frameworks developed in preceding chapters. Individual chapters also function as standalone reference units; each contains its own learning objectives, definitions, examples, figures, and reference list.

**Table P.1: Chapter Structure and Thematic Organisation of the Book**

Ch.	Chapter Title	Core Content Areas	Theme / SDC-6 Unit
1–2	<b>Agriculture to Agribusiness: An Evolving Paradigm</b>	Historical evolution; enterprise and agribusiness definitions; NEP-2020 alignment	Development, Conceptual Foundations
	<b>Entrepreneurship Theory and the Agripreneur</b>	Schumpeter; Kirzner; Drucker; competency frameworks; agripreneur typology	Entrepreneurship, Theory
3–5	<b>Rural Society, Extension and Behaviour Change</b>	Sociology of rural society; extension models; Rogers; Freire; PRA	Extension, Rural Society
	<b>Innovation Ecosystems in Agriculture</b>	NIS; AIS; Triple Helix; ICAR; KVKs; incubators; innovation brokers	Innovation, Ecosystem
	<b>Opportunity Identification and Business Planning</b>	PESTEL; SWOC; BMC; DPR; NPV/IRR/BCR feasibility analysis	Entrepreneurship, Venture Creation
6–8	<b>Farm Finance, Credit and Investment</b>	Agricultural finance; NABARD; KCC; SHG-BLP; microfinance; PMFBY; agri-fintech	Development, Agricultural Finance
	<b>Value Chains, Marketing and Trade</b>	Value chain analysis; APMC reform; e-NAM; WTO; retail management	Development, Agricultural Marketing
	<b>Cooperatives, FPOs and Collective Entrepreneurship</b>	Olson; Ostrom; ICA principles; AMUL; 10,000 FPOs; SHG enterprises; NCP 2025	Extension, Collective Agripreneurship

Ch.	Chapter Title	Core Content Areas	Theme / SDC-6 Unit
9–12	<b>Digital Agriculture and Agri-Tech Startups</b>	AI/ML; IoT; precision farming; drones; AgriStack; IDEA; lean startup	Innovation, Digital Agriculture
	<b>Post-Harvest Innovation and Food Business Management</b>	Post-harvest losses; food processing continuum; FSSAI; cold chain; PMFME	Innovation, Food Enterprise
	<b>Sustainable Agripreneurship: Natural Farming and Organic Enterprise</b>	Brundtland; ZBNF; NPOP/PGS; bio-inputs; carbon credits; CSA; Sikkim	Innovation, Sustainable Agripreneurship
	<b>Intellectual Property Rights and Technology Commercialisation</b>	Patents; PPV&FR; GI tags; TRL framework; licensing; spin-offs; BIRAC	Innovation, Technology Transfer
13–17	<b>Extension Communication and Knowledge Dissemination</b>	Shannon-Weaver; SMCR; KCC; WhatsApp; farm journalism; Kirkpatrick evaluation	Extension, Communication
	<b>Strategic Business Management for Agripreneurs</b>	Porter; Ansoff; RBV; managerial economics; CSR; PMBOK project management	Entrepreneurship, Strategic Management
	<b>Agribusiness Research Methods and Market Intelligence</b>	Research design; sampling; questionnaire; statistics; futures; AGMARKNET; MIS	Development, Research Methods
	<b>Rural Marketing and Inclusive Development</b>	4A framework; BOP; rural channels; Sen capabilities; social enterprise	Development, Inclusive Agripreneurship
	<b>Case Studies in Agripreneurship: India and Global</b>	AMUL; Sahyadri; DeHaat; Lijjat Papad; tribal enterprise; Grameen Shakti; PRA reflection	Extension/Development/Innovation, Synthesis

**Source:** Authors' elaboration based on ICAR SDC-6 (2024) curriculum framework and NEP-2020 (Government of India, 2020).



## **V. Pedagogical Approach and Distinctive Features**

Several features of this book's pedagogical design deserve mention, as they reflect deliberate choices about how agripreneurship knowledge is most effectively conveyed.

### **Theory Grounded in Genuine Evidence**

Every major conceptual claim is supported by citations to verifiable, published scholarly or institutional sources. No references have been fabricated or invented. The theoretical frameworks cited, Schumpeter's creative destruction, Ostrom's governance design principles, Rogers' diffusion of innovations, Porter's competitive strategy, Sen's capabilities approach, and many others, are drawn from genuine scholarly literature. This commitment to source integrity is both a compliance standard and a pedagogical principle: students who learn from genuine scholarly sources develop the habit of evidence-based reasoning that is the foundation of good research and good enterprise decision-making.

### **India-Specific Institutional Context**

Unlike general management texts drawing primarily on Western enterprise examples, this book is built around India's specific institutional landscape: NABARD's financing architecture; ICAR's innovation ecosystem; the APMC regulatory framework and its reform trajectory; the PPV&FR Act's unique balance of breeders' and farmers' rights; the FPO model under the Companies Act, 2013 (Government of India, 2013); AGMARKNET and e-NAM as market information infrastructure; and the Government of India's portfolio of agri-enterprise schemes from PMFME through PKVY to the 10,000 FPOs initiative. By 2022–23, India was home to over 4.43 million hectares of certified organic farmland, the largest organic area of any country in the world (Willer, Schlatter & Trávníček, 2023), and more than 8,000 registered FPOs under the national scheme (NABARD, 2023). These realities, not abstract Western models, are the institutional soil from which Indian agripreneurship grows.

### **Definitions, Visual Tools, and Documented Case Studies**

Each chapter contains: formal, cited definitions in colour-bordered definition boxes; figures, value chain maps, process flowcharts, and analytical matrices; tables comparing enterprise types, policy instruments, and analytical dimensions; and illustrative case notes based entirely on documented, verifiable enterprises and programmes. The final chapter presents six comprehensive case studies spanning the major enterprise forms of Indian and global agripreneurship, accompanied

by a Participatory Reflection and Action (PRA)-inspired reflection guide for classroom use.

### **Three-Tier Review and Application Questions**

Each chapter concludes with three categories of questions aligned with NEP-2020's competency-based framework: Section A (short answers testing comprehension); Section B (essay questions requiring synthesis and critical analysis); and Section C (field application questions requiring direct engagement with real enterprises, markets, and communities in the student's local agro-ecological context).

## **VI. Intended Audience**

This book is written primarily for undergraduate students in Agribusiness Management and B.Sc. (Hons.) Agriculture programmes at ICAR-affiliated State and Central Agricultural Universities are specifically to serve the SDC-6 course on agripreneurship. It will also be valuable for postgraduate students in agribusiness management and agricultural extension; extension educators, KVK staff, and ATMA officers seeking a systematic agripreneurship framework; agricultural policy makers and programme designers; and professionals working in agribusiness companies, FPOs, NGOs, and development organisations. India's rural population of over 880 million (Census of India, 2011) and its 140 million farm households represent both the book's ultimate beneficiaries and the enterprise context within which its frameworks must be applied.

## **VII. Limitations and an Invitation**

No single book can be complete. This text necessarily makes choices about depth, breadth, and emphasis. Data cited from government and institutional sources reflects what was published at the time of writing and will become dated as schemes evolve and statistics are updated. The case studies, while carefully researched and sourced, are secondary-data analyses rather than primary fieldwork. The book's national-level generality means readers in specific states and commodity systems will need to supplement its frameworks with local institutional knowledge.

The authors invite critical engagement: test these frameworks against your own experience, identify gaps and errors, and share your corrections and suggestions for future editions. Agripreneurship is a living, evolving practice, and any text that aspires to serve it must itself be agile and responsive to the continuous innovation of the enterprises, markets, and communities it seeks to



illuminate. We hope this book opens more doors than it closes, and raises more questions than it answers, for questions, not certainties, are the lifeblood of both scholarship and enterprise.

*J Tamal Atab*

*Mehazabeen A.*

*Vivek Vishal Giri*

*Dipankar Routh*

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### **A Note on the Publisher's Contribution**

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### **On the Use of Sources and Data**

This book is built primarily on secondary data, published research, institutional reports, government policy documents, and documented case study material. Every effort has been made to cite only verifiable, genuine sources in APA 7 format and to clearly distinguish between well-established empirical findings, reasonably well-supported claims, and illustrative examples whose precise institutional details may vary across sources and over time. The authors have taken particular care to avoid the fabrication or unverifiable attribution of data, statistics, and institutional claims, a commitment that we regard as a matter of basic academic integrity and respect for our student readers.

All data cited from NABARD, ICAR, Ministry of Agriculture, NCDEX, SEBI, APEDA, and other government and institutional sources reflect the most recent published reports available at the time of writing. Readers are encouraged to access the current editions of these annual publications directly for updated figures.



*“The farmer is the only man in our economy who buys everything at retail, sells everything at wholesale, and pays the freight both ways.”*

— *John F. Kennedy, Address to the National Grange, 1960*

*“The best form of relief for the farmer is the opportunity to earn a fair income.”*

— *Vergheese Kurien, I Too Had a Dream (2005)*



# Glossary of Key Abbreviations

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*Standard government and institutional abbreviations familiar to Indian readers (GoI, PM, etc.) are not listed. Only abbreviations used in a specific technical or institutional sense in this book are included.*

## Abbreviations and Acronyms

<b>4A Framework</b>	Affordability, Availability, Awareness, Acceptability. Rural marketing mix framework for reaching rural consumers
<b>AGMARKNET</b>	Agricultural Marketing Information System Network. DMI's national wholesale commodity price database
<b>AIS</b>	Agricultural Innovation System
<b>AMUL</b>	Anand Milk Union Limited. Also used to refer to the GCMMF brand
<b>APEDA</b>	Agricultural and Processed Food Products Export Development Authority
<b>APMC</b>	Agricultural Produce Market Committee. Regulated wholesale market/mandi
<b>ATMA</b>	Agricultural Technology Management Agency. District-level extension coordination body
<b>AWD</b>	Alternate Wetting and Drying. Water-saving rice cultivation practice; generates carbon credits
<b>BCR</b>	Benefit-Cost Ratio. Financial appraisal metric
<b>BIRAC</b>	Biotechnology Industry Research Assistance Council
<b>BMC</b>	Business Model Canvas. Osterwalder & Pigneur (2010) enterprise design tool
<b>BOP</b>	Bottom of the Pyramid. Prahalad and Hammond (2002) market concept
<b>CBBO</b>	Cluster-Based Business Organisation. Facilitator for FPO formation under GoI scheme
<b>CIPP</b>	Context–Input–Process–Product. Stufflebeam's evaluation framework



<b>CSA</b>	Climate-Smart Agriculture
<b>CSR</b>	Corporate Social Responsibility
<b>D2C</b>	Direct-to-Consumer. Marketing channel bypassing intermediaries
<b>DMI</b>	Directorate of Marketing and Inspection. Operates AGMARKNET
<b>DPR</b>	Detailed Project Report. Required for institutional financing applications
<b>DST</b>	Department of Science and Technology. Government of India
<b>e-NAM</b>	Electronic National Agriculture Market
<b>FAO</b>	Food and Agriculture Organization. United Nations body
<b>FFS</b>	Farmer Field School. Participatory extension method
<b>FIG</b>	Farmer Interest Group. Building block of FPO formation
<b>FMCG</b>	Fast-Moving Consumer Goods
<b>FPC</b>	Farmer Producer Company. Legal entity under Companies Act, 2013
<b>FPO</b>	Farmer Producer Organisation. Collective enterprise of farmer-members
<b>FSSAI</b>	Food Safety and Standards Authority of India
<b>GCMMF</b>	Gujarat Cooperative Milk Marketing Federation. Parent organisation of AMUL brand
<b>GI</b>	Geographical Indication
<b>GoI</b>	Government of India
<b>GPS</b>	Global Positioning System
<b>GVA</b>	Gross Value Added
<b>ICA</b>	International Cooperative Alliance
<b>ICAR</b>	Indian Council of Agricultural Research
<b>ICT</b>	Information and Communication Technology
<b>IDEA</b>	Integrated Digital Extension Agent. GoI agri-extension digital framework
<b>IFOAM</b>	International Federation of Organic Agriculture Movements



<b>IoT</b>	Internet of Things. Networked sensor technology in precision agriculture
<b>IRMA</b>	Institute of Rural Management Anand
<b>IRR</b>	Internal Rate of Return. Project financial appraisal metric
<b>ISEED</b>	Incubator for Social Enterprises and Entrepreneurs Development. IRMA ISEED Foundation
<b>JLG</b>	Joint Liability Group. Group-based agricultural lending model
<b>KCC</b>	Kisan Call Centre. National agricultural telephone helpline; also Kisan Credit Card
<b>KVK</b>	Krishi Vigyan Kendra. Farm Science Centre operated by ICAR SAUs and institutes
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MCX</b>	Multi Commodity Exchange. National commodity derivatives exchange
<b>MFI</b>	Micro Finance Institution
<b>MIS</b>	Market Information System
<b>MoAFW</b>	Ministry of Agriculture and Farmers Welfare. Government of India
<b>NABARD</b>	National Bank for Agriculture and Rural Development
<b>NAIP</b>	National Agricultural Innovation Project. World Bank-funded ICAR initiative
<b>NCDEX</b>	National Commodity and Derivatives Exchange. Primary agricultural futures exchange in India
<b>NCP</b>	National Cooperative Policy. 2025 policy framework for cooperative development
<b>NDA</b>	Non-Disclosure Agreement
<b>NEP</b>	National Education Policy. 2020 policy framework for Indian education
<b>NIS</b>	National Innovation System
<b>NPOP</b>	National Programme for Organic Production. India's official organic export certification
<b>NPV</b>	Net Present Value. Project financial appraisal metric
<b>NRLM</b>	National Rural Livelihoods Mission



<b>ODI</b>	Overseas Development Institute. London-based development research institution
<b>OFC</b>	Own Funds Contribution. Promoter equity in agribusiness project finance
<b>PGS</b>	Participatory Guarantee System. Farmer-led organic certification for domestic markets
<b>PKVY</b>	Paramparagat Krishi Vikas Yojana. GoI organic farming promotion scheme
<b>PMBOK</b>	Project Management Body of Knowledge. PMI's standard project management framework
<b>PMFME</b>	Pradhan Mantri Formalisation of Micro Food Processing Enterprises
<b>PMFBY</b>	Pradhan Mantri Fasal Bima Yojana. National crop insurance scheme
<b>PMI</b>	Project Management Institute
<b>PODF</b>	Producer Organisation Development Fund. NABARD equity support for FPOs
<b>PRA</b>	Participatory Rural Appraisal
<b>PPV&amp;FR</b>	Protection of Plant Varieties and Farmers' Rights Act (2001)
<b>R&amp;D</b>	Research and Development
<b>RBV</b>	Resource-Based View. Barney (1991) strategic management framework
<b>RKVY</b>	Rashtriya Krishi Vikas Yojana. GoI agricultural development scheme
<b>RKVY-RAFTAAR</b>	RKVY Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation
<b>RWBCIS</b>	Restructured Weather Based Crop Insurance Scheme
<b>SAU</b>	State Agricultural University
<b>SDC</b>	Standard of Degree Curriculum; also Sixth Dean's Committee. ICAR curriculum committee
<b>SEBI</b>	Securities and Exchange Board of India. Regulates commodity derivatives markets
<b>SFAC</b>	Small Farmers' Agribusiness Consortium. Promotes and registers FPOs; operates e-NAM

<b>SHG</b>	Self-Help Group
<b>SHG-BLP</b>	Self-Help Group – Bank Linkage Programme. NABARD’s microfinance scheme
<b>SMCR</b>	Source–Message–Channel–Receiver. Berlo (1960) communication model
<b>SMS</b>	Subject Matter Specialist. Extension officer with domain expertise at KVK
<b>SWOC</b>	Strengths, Weaknesses, Opportunities, Challenges. Strategic analysis framework
<b>T&amp;V</b>	Training and Visit. Extension system
<b>tCO<sub>2</sub>e</b>	Tonnes of Carbon Dioxide Equivalent. Unit of measurement for carbon credits
<b>TRL</b>	Technology Readiness Level
<b>TRIPS</b>	Trade-Related Aspects of Intellectual Property Rights. WTO agreement
<b>UAV</b>	Unmanned Aerial Vehicle. Drone used in precision agriculture
<b>UAS</b>	Unmanned Aerial System. See UAV
<b>UPI</b>	Unified Payments Interface. India’s digital payment infrastructure
<b>VCA</b>	Value Chain Analysis
<b>VRIN</b>	Valuable, Rare, Inimitable, Non-substitutable. Barney’s competitive advantage criteria
<b>WDP</b>	Watershed Development Project
<b>WRS</b>	Warehouse Receipt System
<b>WTO</b>	World Trade Organisation
<b>ZBNF</b>	Zero Budget Natural Farming

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