Final Project Report – AgriTrust Connect

Project Title: AgriTrust Connect – Sustainable Agriculture CRM
Phase: 10 – Final Documentation & Presentation
Date: 25 September 2025
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1. Executive Summary

AgriTrust Connect is a Salesforce-based CRM platform designed to digitize agriculture for smallholder farmers in India. The system connects **farmers, agronomists, suppliers, and corporate buyers**, creating a transparent and sustainable agricultural ecosystem.

Through **10 structured phases**, the project addressed real-world agricultural problems, built scalable Salesforce solutions, and delivered end-to-end features ranging from **data modeling and automation** to **integration, reporting, and dashboards**.

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2. Problem Statement

Indian farmers face critical issues:

- Lack of access to real-time advisories, pricing, and weather updates.
- Poor visibility of supply chains and limited access to direct buyers.
- Manual data collection leading to inefficiency and loan ineligibility.

Corporate buyers struggle with:

- Traceability of produce origin.
- Ensuring sustainable sourcing and ESG compliance.

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3. Solution Overview

AgriTrust Connect provides:

- **Farmer Empowerment:** Digital records, advisories, and financial traceability.
- **Agronomist Tools:** Dashboards, mass communication, and soil data tracking.
- **Buyer Support:** Procurement records, traceability ledger, and analytics.
- **Automation:** Notifications, approvals, workflows, and smart advisory creation.

Built entirely on **Salesforce CRM**, the solution leverages standard features, custom objects, Apex, Lightning Web Components (LWCs), and integrations.

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4. Project Phases & Deliverables

Phase 1: Problem Understanding & Industry Analysis

- Requirements gathering, stakeholder analysis, and industry problem validation.

- Success metrics and roadmap designed.

Phase 2: Org Setup & Configuration

- Developer Org setup, GitHub DevOps, company profile, users, roles, profiles.
- Security & sharing model configured (OWD, FLS, Permission Sets).

Phase 3: Data Modeling & Relationships

- Custom objects: Farmer, Farm, Crop Cycle, Soil Record, Advisory, Procurement, Traceability Ledger.
- Relationships mapped via **Schema Builder**.
- Page layouts, record types, compact layouts defined.

Phase 4: Process Automation (Admin)

- Validation Rules: enforced data integrity.
- Workflow Rules: advisory notifications to farmers.
- Process Builder: auto-create tasks on harvest logs.
- Approval Process: buyer procurement approvals.
- Flows: advisory creation & traceability ledger automation.

Phase 5: Apex Development

- Triggers for ledger creation & data validations.
- Apex classes for credit scoring & business logic.
- Asynchronous Apex for long-running operations.
- Test classes → 80%+ coverage.

Phase 6: Lightning Web Components (LWCs)

- Custom LWCs for:
    - Farmer Dashboard (active crops, advisories).
    - Procurement Tracker (orders, status).
    - Agronomist Panel (soil & crop insights).
- Mobile-first design with responsive layouts.

Phase 7: Integration

- External API integrations:
    - Weather API for real-time advisories.
    - Market Price API for farmer selling price suggestions.
- Demonstrated Salesforce → External REST callouts using Apex.

Phase 8: Data Management & Deployment

- Data imports (farmers, farms, crops).

- Data Loader & Import Wizard used.
- Deployment pipeline: Dev Org → Sandbox → Production via Change Sets.
- Backup strategy & error handling included.

Phase 9: Reporting & Dashboards

- Dashboards built for each role:
    - Farmers – crop health, advisories.
    - Agronomists – soil data, farmer stats.
    - Buyers – procurement & traceability.
    - Executives – yield, adoption KPIs.
- Used **Dynamic Dashboards** for secure, role-based analytics.

Phase 10: Final Presentation & Wrap-Up

- Consolidated documentation into README + Reports.
- Final PPT created for demo day.
- System ready for **pilot testing with farmers**.

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5. Security & Compliance

- **Data Security:** Role hierarchy, FLS, OWD.
- **Compliance:** GDPR & Indian data privacy policies.
- **Audit Trail:** System logging & approval history tracking.

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6. Project Outcomes

- Farmers now get **real-time advisories** and improved loan eligibility through digital records.
- Agronomists can **serve more farmers efficiently** with dashboards & automation.
- Buyers get **transparent procurement data & ESG compliance**.
- Project reached **Phase 10 completion** with a fully functional Salesforce org.

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7. Future Enhancements

- **AI (Einstein Analytics):** Predictive yield forecasting.
- **Blockchain:** Tamper-proof traceability ledger.
- **IoT Integration:** Soil moisture, weather stations, drones.
- **Mobile App Extension:** Offline-first farmer app.

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8. Conclusion

AgriTrust Connect successfully digitizes agriculture using Salesforce CRM, bridging the gap between **farmers, agronomists, and buyers**. The phased implementation ensured systematic delivery, automation, and scalability, making the project ready for **real-world pilot adoption**.

Final Status: Project Completed (Phase 1–10).
Deliverables: Source Code, Documentation, Reports, PPT.