

A Value Chain Development Approach to Scale Up Results in Agriculture: Sustainable Inclusion of Smallholders in Odisha

In Odisha, where a significant portion of the population depends on agriculture for livelihood, smallholder farmers often face challenges in accessing markets, technologies, finance, and knowledge. These constraints limit their ability to increase productivity, improve income, and participate meaningfully in agricultural value chains. However, adopting a value chain development (VCD) approach offers a viable strategy to scale up results and ensure the sustainable inclusion of smallholders in the agricultural economy.

Understanding Value Chain Development (VCD)

A value chain refers to the sequence of activities involved in producing, processing, and delivering a product or service from raw material to the final consumer. In agriculture, a value chain includes farmers, input suppliers, processors, traders, distributors, and retailers. Value Chain Development (VCD) focuses on strengthening each link of the chain, addressing the barriers at the producer, intermediary, and consumer levels, and improving the efficiency, competitiveness, and sustainability of the entire chain.

Key Elements of Value Chain Development for Smallholders in Odisha

Market Access and Linkages: Smallholders in Odisha often lack direct access to high-value markets due to limited infrastructure, market information, and negotiating power. VCD promotes creating robust linkages between smallholders and buyers, such as processors, wholesalers, and export companies. This involves developing contract farming models, strengthening farmer producer organizations (FPOs), and enhancing market intelligence to ensure fair prices and consistent demand for farm produce.

Technology and Knowledge Transfer: One of the key challenges faced by smallholders is the lack of modern farming techniques and knowledge of sustainable practices. VCD can address this by integrating farmers into knowledge networks, training them in best practices, and facilitating access to new technologies like precision agriculture, organic farming methods, and climate-resilient crops. Partnering with agricultural extension services, NGOs, and academic institutions can support the dissemination of new agricultural techniques and technologies.

Finance and Credit Access: Limited access to credit is a significant barrier for smallholder farmers in Odisha. VCD focuses on facilitating access to affordable financing, such as low-

interest loans, subsidies, and insurance products, specifically tailored to the needs of smallholders. It also promotes partnerships with financial institutions, microfinance organizations, and government schemes to ensure farmers have the capital to invest in quality inputs, equipment, and technologies.

Capacity Building and Institutional Strengthening: Strengthening farmers' capacity to engage in the value chain is essential for long-term sustainability. This includes not only training in agricultural practices but also in entrepreneurship, financial management, and market intelligence. Building the capacity of local institutions like FPOs can empower farmers to negotiate better prices, enhance collective bargaining power, and engage in value-added activities like processing, packaging, and branding.

Sustainability and Environmental Considerations: Ensuring the sustainability of agricultural practices is crucial for long-term success. VCD promotes the adoption of environmentally sustainable farming practices that reduce dependency on chemical inputs, conserve soil health, and protect water resources. Additionally, integrating smallholders into organic and climate-smart agricultural practices can provide access to niche markets, offering higher premiums for sustainable products.

Inclusive Policy Advocacy: To ensure the broad-based inclusion of smallholders, VCD approaches must engage with government policies at the local and national levels. Advocacy efforts can focus on policies that facilitate access to resources, remove trade barriers, promote smallholder inclusion in agricultural development programs, and incentivize sustainable practices. Collaboration with policymakers, industry players, and civil society organizations is crucial to aligning policies with the needs of smallholders.

Benefits of the VCD Approach for Smallholders in Odisha

- **Increased Income and Livelihood Security:** By integrating smallholders into the value chain, they gain access to more lucrative markets and improve productivity through better inputs and practices. This leads to increased income, improved financial security, and reduced vulnerability to market fluctuations.
- **Improved Food Security:** As smallholders scale up production and diversify crops, they contribute to local food security. A diversified value chain enhances the availability and accessibility of nutritious food, benefiting communities at large.
- **Market Competitiveness and Resilience:** The VCD approach enhances the competitiveness of smallholder farmers by improving their efficiency and integrating them into high-value markets. Farmers gain resilience to external shocks, such as price volatility or climate change, through better market access and diversified production systems.

- **Sustainable Agricultural Practices:** With a focus on sustainable farming techniques, smallholders can adopt practices that not only improve yields but also contribute to environmental conservation and long-term productivity.

Scaling Up VCD in Odisha

To scale up VCD in Odisha, the following steps are essential:

1. **Building Strong Partnerships:** Collaborating with local NGOs, private sector actors, and government agencies can foster a more integrated and supportive environment for smallholders. Public-private partnerships can bring in expertise, funding, and access to new markets.
2. **Strengthening Farmer Producer Organizations (FPOs):** FPOs can play a central role in organizing smallholders, facilitating collective action, and creating stronger market linkages. Support for FPOs in terms of capacity building, access to credit, and market access will be crucial for scaling up.
3. **Leveraging Technology for Reach and Efficiency:** Digital tools can help farmers access real-time market prices, agricultural advice, and weather forecasts. E-commerce platforms can also serve as a direct market for farmers, reducing reliance on intermediaries.
4. **Monitoring and Evaluation:** Establishing a robust monitoring and evaluation framework is critical for tracking progress, learning from successes, and making adjustments to the approach. Continuous feedback from farmers, market actors, and stakeholders will help refine strategies and ensure long-term sustainability.

Conclusion

A value chain development approach to agriculture in Odisha offers a transformative pathway for the sustainable inclusion of smallholders. By addressing barriers in market access, technology, finance, and capacity, this approach can scale up agricultural outcomes, increase income, and improve livelihoods for smallholder farmers. Ultimately, it can contribute to a more inclusive, resilient, and sustainable agricultural system that benefits both smallholders and the broader community in Odisha.

What is to be Scaled Up? A Comprehensive Approach for Odisha

Scaling up is essential to extend the impact of successful projects beyond their initial scope and foster long-term, sustainable improvements across a wider region. In the context of Odisha, scaling up involves planning, designing, and implementing projects with the intention of reaching more stakeholders, increasing the depth of impact, and leveraging resources for broader benefits. Below, we explore what can be scaled up in Odisha, considering agriculture, education, sanitation, and community-driven development, with an emphasis on sustainable and inclusive growth.

1. Agricultural Innovations and Value Chain Integration

Why Scale Up?

Odisha is an agrarian state with a significant percentage of the population dependent on agriculture for their livelihood. However, smallholder farmers often face challenges related to market access, technology, and financial inclusion. Scaling up agricultural innovations can have a transformative impact, improving productivity, food security, and the livelihoods of farming communities.

What to Scale Up?

- **Climate-Smart Agriculture:** Scaling up climate-resilient farming practices, including crop diversification, soil health management, and efficient water use practices. By incorporating climate-smart agriculture at a larger scale, farmers can mitigate risks associated with climate change, such as droughts and erratic rainfall.
- **Digital Platforms for Farmers:** Scaling up the use of technology to deliver information on weather forecasts, market prices, best practices, and access to input suppliers. Mobile apps and SMS services can provide real-time support to farmers, allowing them to make informed decisions that improve yields and reduce costs.
- **Farmer Producer Organizations (FPOs):** Expanding the reach and capacity of FPOs can help smallholders collectively access markets, negotiate better prices, and pool resources for input procurement. Strengthening and scaling up these organizations can empower farmers, particularly in remote areas, to access higher-value markets and improve their incomes.
- **Sustainable and Organic Farming Practices:** Introducing and scaling organic farming practices, particularly in cash crops like turmeric, organic rice, and vegetables, can open up premium markets for smallholders while promoting environmental sustainability.
- **Value Addition:** Scaling up value-added processing (such as packaging, milling, and branding) within agricultural supply chains can help farmers retain a larger share of the value generated. Training farmers and cooperatives to set up small-scale processing units for products like rice, pulses, oilseeds, and fruits can generate additional income streams.

How to Scale Up:

- **Policy Support:** Government policies should incentivize the adoption of climate-smart and organic farming, provide subsidies or credit for technology adoption, and support market linkages for value-added products.

- **Public-Private Partnerships (PPP):** Collaborations with private sector actors like agribusinesses, tech companies, and financial institutions can help farmers scale their operations, access technologies, and tap into national and global markets.
- **Capacity Building:** Training and mentoring programs for farmers, cooperatives, and local agricultural extension workers to strengthen technical skills and knowledge in sustainable farming practices and value chain operations.

2. School Sanitation and Hygiene Programs

Why Scale Up?

Improving school sanitation and hygiene is critical for enhancing educational outcomes, preventing waterborne diseases, and promoting healthier environments for children. Scaling up sanitation initiatives in schools ensures that more children, especially those in rural and underserved areas, benefit from clean, safe, and hygienic school environments.

What to Scale Up?

- **Improved Sanitation Infrastructure:** Scaling up the construction and maintenance of clean toilets and handwashing facilities in schools across the state. This includes ensuring water availability, waste disposal, and sanitation systems that are accessible to all students, including girls and children with disabilities.
- **Hygiene Education Programs:** Expanding hygiene awareness campaigns in schools, focusing on menstrual hygiene, safe drinking water, and general sanitation practices. Teaching children the importance of hygiene can instill lifelong habits that improve overall public health.
- **Community-Led Total Sanitation (CLTS):** Scaling up CLTS initiatives, which involve the entire community in improving sanitation practices, ensuring collective action and behavior change. This can be extended beyond schools to rural and urban communities to create a cleaner, healthier environment.
- **Water and Sanitation in Remote Areas:** Ensuring that schools in remote tribal, rural, and underserved areas have access to safe drinking water and sanitation facilities. Special attention is needed to address geographical, cultural, and logistical barriers in these areas.

How to Scale Up:

- **Government Funding and Policy Advocacy:** Increased allocation of government resources for school sanitation programs, and advocacy for policies that prioritize sanitation infrastructure in education. Ensuring that the government's annual budgets include dedicated funds for WASH (Water, Sanitation, and Hygiene) in schools is critical.

- **Partnerships with NGOs and Donors:** Collaborating with national and international donors, NGOs, and community-based organizations that specialize in sanitation and hygiene education to scale the implementation and impact of programs.
- **Community Engagement:** Involve local communities, school management committees, and students in the design, implementation, and maintenance of sanitation facilities. This will ensure long-term sustainability and ownership of the programs.

3. Water, Sanitation, and Hygiene (WASH) for Rural Communities

Why Scale Up?

WASH programs in rural communities are essential for reducing waterborne diseases, improving public health, and enhancing the quality of life. Scaling up these programs is crucial for achieving SDG 6 (Clean Water and Sanitation for All) and improving the livelihoods of rural populations, especially in Odisha's tribal and underserved areas.

What to Scale Up?

- **Improved Drinking Water Supply:** Scaling up the installation of safe drinking water systems (e.g., piped water, rainwater harvesting, community filtration plants) in rural and remote villages.
- **Sanitation Infrastructure:** Expanding access to hygienic toilets and waste disposal systems to eliminate open defecation, which remains a challenge in many parts of Odisha.
- **Behavior Change Programs:** Scaling up community-based awareness and education campaigns that promote handwashing with soap, menstrual hygiene management, and the safe disposal of waste.
- **Rainwater Harvesting and Water Conservation:** Encouraging and scaling up rainwater harvesting techniques in rural areas to reduce dependency on ground and surface water sources, ensuring a sustainable supply of water for drinking and agriculture.

How to Scale Up:

- **Government Investment:** The state government can scale up the implementation of the Swachh Bharat Mission and the Odisha State Rural Water Supply and Sanitation Program, which target rural areas for improved sanitation and drinking water access.
- **Collaboration with Local Government Bodies:** Partnering with panchayats and local government bodies to ensure that WASH infrastructure is developed and maintained effectively at the grassroots level.

- **Capacity Building for Local Communities:** Training community members and local entrepreneurs in the maintenance of WASH facilities and in promoting behavior change, ensuring long-term sustainability.

4. Inclusive Education for Marginalized Communities

Why Scale Up?

Access to quality education is crucial for breaking the cycle of poverty in marginalized communities, particularly among tribal populations and girls. Scaling up inclusive education initiatives ensures that all children, irrespective of their background, have access to education that empowers them to participate in the economic and social development of the region.

What to Scale Up?

- **Scholarships and Financial Aid:** Expanding scholarship programs to make education more accessible for marginalized children, especially girls, in rural and tribal areas.
- **Bridge Programs for Out-of-School Children:** Scaling up programs that help out-of-school children catch up with their peers, particularly in remote tribal areas. These programs can offer non-formal education or specialized learning modules tailored to the needs of these children.
- **Vocational Training:** Scaling up vocational education and skills training programs to enhance employability, particularly for youth in rural areas. This will provide them with the skills required for self-employment or employment in emerging sectors.

How to Scale Up:

- **Partnerships with Educational Institutions:** Collaboration between government schools, private sector education initiatives, and NGOs to expand access to quality education, with a focus on vocational and technical education.
- **Government Policies:** Implementation of policies that support inclusive education, including scholarships, infrastructure development, and dedicated teacher training programs for marginalized groups.

Conclusion

Scaling up in Odisha requires a holistic and integrated approach, focused on leveraging available resources, engaging multiple stakeholders, and ensuring that benefits reach the most vulnerable populations. By scaling up agricultural innovations, WASH programs, inclusive education, and sanitation initiatives, Odisha can pave the way for a more sustainable, equitable, and prosperous future for its people, especially the smallholders, marginalized communities, and women.

Value Chain Approach in the Context of Odisha

A **value chain approach** refers to the entire process through which a physical product moves from its initial input stages (such as raw materials and resources) to production, processing, and ultimately to consumption. Throughout this process, multiple actors—producers, processors, distributors, retailers, and consumers—are involved. Each actor contributes value to the product, either through labor, knowledge, resources, or services, and receives a share of the final price, which is essential for the profitability and sustainability of their business.

In Odisha, the value chain approach is especially relevant to sectors such as agriculture, fisheries, handicrafts, and local industries, which form the backbone of the state's economy. This approach helps optimize the flow of products, resources, and financial capital, and ensures that all stakeholders—from smallholder farmers to local artisans—benefit from the value they contribute at each stage of the chain.

Components of the Value Chain Approach for Odisha

1. Input Supply and Raw Materials

- **Agriculture:** Smallholder farmers in Odisha predominantly produce crops like rice, pulses, oilseeds, and vegetables. At the very beginning of the value chain, input suppliers provide seeds, fertilizers, pesticides, irrigation systems, and tools. Scaling up the input supply chain ensures that smallholder farmers have access to quality and affordable inputs, such as hybrid seeds, organic fertilizers, and pest control products.
- **Fisheries:** For the fishing industry, raw materials like quality fish feed, nets, and boats are key inputs. Scaling up input supply for small-scale fishers can improve their productivity and income.

2. Production Stage

- **Agriculture:** In the production stage, smallholder farmers cultivate crops. The key to enhancing this stage in Odisha is to implement sustainable farming practices, including climate-smart agriculture, crop diversification, and organic farming. Training farmers in modern, efficient farming techniques can significantly increase yields and reduce environmental impacts.
- **Handicrafts and Artisanal Products:** Odisha is known for its unique handicrafts such as Pattachitra paintings, silver filigree work, and Sambalpuri textiles. At the production stage, artisans and craftspersons design and produce these items. Ensuring they have access to quality raw materials and training in modern techniques can boost productivity and marketability.

3. Processing Stage

- **Agriculture:** After the harvest, crops are processed into final products. For example, rice is milled into rice flour, oilseeds are processed into oil, and pulses are packaged for sale. Scaling up small-scale processing units can help farmers add value to their produce, leading to higher earnings. Additionally, introducing modern processing technologies and setting up local processing units will help reduce post-harvest losses and create employment opportunities.
- **Fisheries:** Fish processing, such as cleaning, packaging, and value-added products like dried fish, can be scaled up in Odisha. This would help increase the income of fishers by tapping into the local and export markets.

4. Marketing and Distribution

- **Agriculture and Fisheries:** Once processed, the products need to reach consumers, either locally or through national and international markets. Effective marketing and distribution strategies are crucial to ensure that smallholder farmers and fishers can access markets at fair prices. In Odisha, promoting Farmer Producer Organizations (FPOs) and cooperatives can help create collective marketing channels, reducing the role of middlemen and ensuring better profits for producers.
- **Handicrafts:** Expanding the market for Odisha's handicrafts, both domestically and internationally, involves creating e-commerce platforms, improving branding, and building strong retail networks. Empowering local artisans with better packaging, design, and market knowledge is crucial to enhancing the value chain in this sector.

5. Consumption

- **Agricultural Products:** The final stage of the agricultural value chain is the consumption of food products by households or industries. A value chain approach here involves ensuring that processed agricultural products reach urban and rural consumers, providing nutritious food while supporting local economies. Policies to support direct market access and promote nutritional value are important in this stage.
- **Handicrafts and Local Products:** For handicrafts, consumers who buy these products, both locally and internationally, complete the value chain. Promoting the cultural uniqueness of Odisha's handicrafts and encouraging their consumption both within and outside India can lead to increased demand and higher value for these products.

Actors in the Value Chain for Odisha

1. **Farmers, Artisans, and Producers:** These are the primary producers who create the raw material for the value chain. For agriculture, this includes smallholder farmers, while for handicrafts, it includes local artisans.
2. **Input Suppliers:** Providers of seeds, fertilizers, tools, machinery, fish feed, and other resources that enable production. Input suppliers play a significant role in ensuring that the producers have access to quality materials.
3. **Processors:** These are the entities that add value to raw materials. For agriculture, this could include rice mills, pulse processing units, and oil extraction units. For handicrafts, small and medium-sized enterprises (SMEs) that process raw materials into finished products are key players.
4. **Traders and Retailers:** These actors facilitate the distribution and sale of goods to end consumers. They often operate in local markets, regional distribution centers, and even global markets.
5. **Consumers:** Consumers are the final link in the value chain. The demand for agricultural products, fish, and handicrafts is driven by consumers, both local and international. By fostering awareness of Odisha's unique agricultural and artisanal products, the state can expand its consumer base.

Benefits of the Value Chain Approach for Odisha

1. **Increased Incomes for Smallholders and Artisans:** By enhancing their roles in the value chain, smallholders and artisans can capture more value from their work, leading to increased income and economic resilience.
2. **Market Access and Economic Integration:** Through the value chain approach, small producers can gain better market access, reducing their dependence on middlemen. This ensures that the economic benefits reach the original producers, leading to more equitable distribution of wealth.
3. **Job Creation and Capacity Building:** Scaling up various stages of the value chain in agriculture, fisheries, and handicrafts can lead to job creation and capacity building in rural Odisha. More people are employed in processing, distribution, and other value-added activities.
4. **Sustainability and Resource Efficiency:** The value chain approach encourages the sustainable use of natural resources and ensures that products meet consumer demands for quality and sustainability. For instance, sustainable agricultural practices and eco-friendly handicraft production help preserve Odisha's environment while increasing its competitiveness.

Challenges and Considerations for Scaling Up in Odisha

- **Infrastructure and Connectivity:** Poor road networks, inadequate storage facilities, and limited access to modern technology can hinder the smooth flow of goods along the value chain.
- **Access to Finance:** Many smallholders and artisans face challenges in accessing credit and investment for scaling up their operations. Financial inclusion initiatives can help bridge this gap.
- **Market Information and Linkages:** Small producers may lack information about market demand and pricing, which could result in them producing goods that do not meet consumer preferences. Strengthening market linkages and providing market information can address this challenge.
- **Policy Support:** The role of government policies is crucial to ensure a conducive environment for value chain development. Policies that promote infrastructure development, ease of doing business, and facilitate trade and market access can make a significant difference.

Conclusion

In Odisha, a value chain approach can significantly enhance the state's agricultural and artisanal sectors. By focusing on improving input supply, production techniques, processing, distribution, and marketing, Odisha can create a more integrated, resilient, and sustainable economy. This approach not only improves the livelihoods of smallholder farmers and local artisans but also fosters economic growth, creates jobs, and ensures that the benefits of development are equitably shared across the state. Scaling up the value chain approach through innovative partnerships, policy support, and capacity building is essential for the future prosperity of Odisha.

a **Value Chain Development (VCD) model** can indeed be scaled up in Odisha, focusing on the agriculture, handicrafts, and rural industries that form the backbone of the state's economy. A value chain development model aims to strengthen the entire chain of activities, from input supply to production, processing, and marketing, ensuring that each link in the chain is optimized for maximum value creation and that smallholders, artisans, and local entrepreneurs are integrated effectively.

A Scalable Value Chain Development Model for Odisha

The following is a detailed framework for a Value Chain Development (VCD) model to be scaled up in Odisha, with a focus on agriculture, fisheries, and handicrafts:

1. Identifying and Mapping Key Value Chains

To begin scaling up a VCD model in Odisha, it is essential to first identify the most promising value chains. In the case of Odisha, these would typically include:

- **Agriculture:** Key crops like rice, pulses, oilseeds, and vegetables.

- **Fisheries:** Inland and coastal fish, aquaculture products.
- **Handicrafts:** Traditional crafts such as Pattachitra paintings, silver filigree work, and Sambalpuri textiles.

Once these value chains are identified, the next step is to **map the entire chain** for each sector—identifying key stakeholders, mapping input supply, production stages, processing, and marketing channels.

2. Strengthening Input Supply and Access to Technology

Challenge: Smallholder farmers and artisans often struggle with accessing quality inputs, tools, and modern technology.

Solution: The VCD model should focus on strengthening access to quality **agricultural inputs** (seeds, fertilizers, irrigation systems) and **tools for artisans** (materials, design tools, and production equipment). For this:

- **Establish partnerships with input suppliers:** Work with public and private sector partners to ensure that smallholders and artisans have access to affordable and quality inputs.
- **Foster knowledge transfer:** Provide training and access to modern agricultural practices and technology, such as **drip irrigation, weather forecasting tools**, and **improved crop varieties** for farmers.
- For artisans, provide access to **improved raw materials** and **capacity-building workshops** on advanced techniques.

3. Enhancing Production Systems and Building Capacities

Challenge: Limited skills, outdated production practices, and low productivity among smallholders and artisans.

Solution: Build the production capacity of smallholders and artisans by:

- **Training and Skill Development:** Introduce **train-the-trainer programs** where local extension agents and skilled artisans can pass on advanced techniques to their peers.
- **Adoption of Best Practices:** Promote climate-smart agricultural practices, **organic farming**, and **value-added processing**. For artisans, promote **design innovation**, quality improvement, and sustainable production techniques.
- **Access to Financing:** Help smallholders and artisans access affordable credit to improve their production capacity. This can be done by collaborating with financial institutions to create **micro-loans** or **investment funds** specifically for small producers.

4. Facilitating Processing and Value Addition

Challenge: A significant portion of raw agricultural products and handicrafts lack value addition, which limits their marketability.

Solution: Strengthen local **processing units** to add value to raw materials before they reach consumers:

- **Establish decentralized processing centers** for agriculture and fisheries. For instance, rice milling units, cold storage facilities for fish, or oil extraction units for oilseeds.
- **Support handicraft-based SMEs:** Encourage small-scale enterprises to process raw materials and create value-added products such as **embellished textiles, custom-made handicrafts**, or **preserved fish** for broader markets.

By improving the infrastructure for processing, the VCD model helps create **job opportunities** and ensures that a larger share of the profit stays within local communities.

5. Linking Producers to Markets

Challenge: Smallholders, artisans, and local businesses often lack direct access to both local and international markets.

Solution: Enhance **market linkages** for producers by:

- **Creating market access points:** Develop **market linkages** through digital platforms, farmer producer organizations (FPOs), cooperatives, and **farmer markets**. For handicrafts, encourage participation in national and international **trade fairs**, exhibitions, and online sales platforms (such as **e-commerce sites**).
- **Building strong value chain partnerships:** Strengthen relationships between producers, processors, and retailers to ensure fair trade, improve contract farming models, and create transparent market networks.
- **Branding and Certification:** Promote **local branding** for Odisha's agriculture and handicrafts. For example, **organic certification for Odisha's rice and pulses** can help increase market value. Similarly, **handicrafts from Odisha** can be marketed globally under a distinct regional brand.

6. Policy Advocacy and Institutional Support

Challenge: A lack of supportive policies and weak institutional structures can hinder the development of value chains.

Solution: Advocate for **policy changes** and **institutional reforms** that support smallholder inclusion in value chains:

- **Government Support for FPOs and Cooperatives:** Strengthen and promote the formation of **Farmer Producer Organizations (FPOs)**, cooperatives, and community-based organizations (CBOs) for collective bargaining and better market access.

- **Inclusive and Supportive Policies:** Advocate for policies that support **smallholder integration into formal markets**, including **subsidies for inputs**, **tax breaks for value-added processing units**, and **infrastructure development** (roads, cold storage, warehouses).
- **Public-Private Partnerships (PPP):** Engage with private-sector companies that can provide both financial and technical assistance to smallholders, creating a win-win relationship.

7. Monitoring, Knowledge Sharing, and Capacity Building

Challenge: Lack of feedback loops and continuous learning within value chains.

Solution: Establish a robust **monitoring and evaluation (M&E)** system to assess the progress and effectiveness of value chain activities:

- **Data-driven decision-making:** Collect and analyze data on productivity, incomes, market demand, and other factors. This data can help track progress, identify bottlenecks, and inform policy.
- **Knowledge sharing platforms:** Create forums where stakeholders—including farmers, artisans, and government officials—can share knowledge, experiences, and best practices.
- **Capacity building for all stakeholders:** Regular training for all actors along the value chain (producers, traders, processors) can help them keep up with changing market dynamics and emerging opportunities.

Scaling the Model

To scale up this model in Odisha, the following steps should be taken:

1. **Expand Geographic Reach:** Implement the value chain development model across a larger number of districts, particularly focusing on areas with high agricultural and handicraft potential.
2. **Leverage Technology:** Use digital tools and platforms to connect producers to markets and provide information on best practices, market prices, and agricultural tips.
3. **Partnerships with NGOs and Civil Society:** Collaborate with non-governmental organizations (NGOs) that have deep grassroots presence to mobilize communities, deliver training, and support policy advocacy efforts.
4. **Secure Funding and Investment:** Work with development banks, government programs, and impact investors to secure funding for scaling up value chain initiatives, particularly for infrastructure development (storage facilities, processing units, etc.).

5. **Continuous Monitoring and Learning:** Regularly evaluate the outcomes of value chain interventions and adapt strategies based on lessons learned, ensuring continuous improvement.

Conclusion

The Value Chain Development model for Odisha, if scaled up effectively, holds the potential to transform smallholder farmers and artisans into thriving entrepreneurs who can access larger markets, improve their incomes, and contribute to the sustainable growth of the local economy. By focusing on strengthening each link in the value chain—from input supply to marketing and policy support—Odisha can ensure that its rural populations are included in economic growth and development.

Scaling Up Value Chain Development (VCD) in Odisha: Pathways and Approaches

The scaling up of Value Chain Development (VCD) in Odisha requires a strategic approach that integrates policy engagement, project financing, and knowledge generation and sharing. The pathways for scaling up will depend on contextual factors, such as the specific challenges faced by local farmers, artisans, and businesses, as well as the levels at which constraints are found—whether at the **policy level**, **project level**, or **knowledge-sharing level**.

The scaling up of VCD interventions in Odisha should focus on overcoming key obstacles and fostering collaboration among various stakeholders, including government agencies, private sector players, NGOs, and community-based organizations.

1. Policy Engagement for Scaling Up VCD in Odisha

The **policy environment** plays a critical role in the success and scalability of value chains. In Odisha, several policy barriers must be addressed to ensure the scaling up of successful VCD interventions. These barriers include weak infrastructure, regulatory challenges, and limited access to financial services, which hinder the growth of value chains in agriculture, fisheries, and handicrafts.

Key Actions:

- **Engage with policymakers:** VCD projects in Odisha should not only focus on implementing existing policies but also advocate for necessary policy changes. For instance, policy reforms could include **subsidies for smallholder farmers**, improved **infrastructure investment** in rural areas, and the creation of a **favorable regulatory environment** for cooperatives and farmer organizations.
- **Policy dialogue and partnerships:** Collaborate with other donors, development agencies, and international organizations like the **World Bank** and **European Union** to influence policy reforms. A successful example could be influencing the

agricultural tax laws or **market access regulations** in Odisha to make them more conducive to smallholder farmers and artisans.

- **Promote fair trade and market access:** Advocate for the reduction of **trade barriers** and **market distortions** that hinder the export of Odisha's handicrafts, agricultural products, and fisheries. This could include better access to national and international markets for the state's products.

2. Project Financing for Scaling Up VCD in Odisha

Financial sustainability is crucial for the long-term success of VCD projects. In Odisha, successful VCD models need to be able to attract financing from both public and private sector partners to ensure their continued impact.

Key Actions:

- **Document successful outcomes:** Evidence of sustainable and replicable VCD models is essential for attracting investment and scaling up. Projects should have a robust **monitoring and evaluation (M&E)** system in place to document their impact on **smallholder incomes, market linkages, and local economic development**.
- **Institutional sustainability:** Ensure that interventions are designed with sustainability in mind. For example, once the project concludes, **farmer cooperatives or private sector players** should take over the market services or infrastructure developed during the project. This could include financing from local financial institutions such as rural banks or microfinance institutions that were part of the project's outreach.
- **Private sector engagement:** The private sector can be a key partner in scaling up VCD. Private companies could help **expand market access**, invest in **processing facilities**, or provide **technical assistance** to local producers. For example, partnering with a food processing company in Odisha to develop value-added products from locally grown crops like **rice, pulses, or oilseeds**.

3. Knowledge Generation and Sharing for Scaling Up VCD in Odisha

Knowledge sharing is critical for replicating and scaling up VCD models. The successful experiences from VCD interventions can be shared with local stakeholders, including farmers, artisan groups, private sector entities, and government bodies, to build a shared understanding of what works and what doesn't.

Key Actions:

- **Global and local knowledge exchange:** Leverage **global knowledge** on VCD models to inform **local practices** in Odisha. For example, IFAD's experience with VCD models in other countries can be presented during workshops or roundtable discussions in Odisha to introduce **best practices** and **successful case studies**.

- **Local networks and platforms:** Establish **VC networks or working groups** in Odisha that can bring together **government agencies, farmers, cooperatives**, and private businesses. These platforms will facilitate knowledge exchange and help identify common bottlenecks, gaps, and opportunities for scaling up.
- **Strengthening local capacity:** Through training programs and workshops, build the capacity of **local extension workers, farmers' groups**, and **entrepreneurs** to adopt innovative practices, manage value chains effectively, and understand market trends. This will create a more robust ecosystem for scaling up VCD interventions.

4. Key Drivers for Scaling Up VCD in Odisha

To successfully scale up VCD interventions, several key drivers should be considered at the outset of any project:

a) Strong Stakeholder Engagement

Successful scaling up requires the involvement of multiple actors, including **government departments, local communities, private sector companies**, and **civil society organizations**. Collaboration among these groups can ensure that the project addresses the needs of all stakeholders and has a broader outreach.

b) Sustainability Planning

It is critical to plan for **institutional sustainability** from the beginning of the project. This means developing exit strategies where **local actors** (such as **farmers' cooperatives** or **local entrepreneurs**) are equipped to continue the value chain activities once the project concludes. Linking these actors to financial services and ensuring they have access to ongoing market opportunities are crucial steps for sustainability.

c) Inclusive Market Systems

The scaling up of VCD should focus on building **inclusive market systems** that integrate smallholders and marginalized groups, such as **women, youth**, and **tribal communities**, into the value chains. This ensures that the benefits of scaling up reach all members of society, not just large-scale producers.

d) Leveraging Technology

Digital platforms and technology can significantly enhance value chain efficiency. In Odisha, digital tools can be used for **market access, product traceability**, and **real-time data collection** to monitor and improve value chain performance.

Conclusion

Scaling up Value Chain Development in Odisha requires a **multi-level approach**, combining **policy engagement, project financing**, and **knowledge-sharing**. By addressing the challenges in each of these areas, Odisha can create an enabling environment for successful VCD

interventions that are sustainable and inclusive. Ensuring the active participation of **local stakeholders, private sector partners, and government bodies** will help scale up Odisha's value chains, benefiting smallholder farmers, artisans, and local businesses while contributing to the overall economic development of the state.

Key Drivers for Scaling Up Value Chain Development (VCD) in Odisha

In Odisha, scaling up value chain interventions for smallholder farmers requires coordinated action among several “movers and shakers,” including the **state and local government, rural producer communities, and the private sector**. These actors bring diverse capacities, access to resources, and influence—and they must collaborate to ensure sustainable and inclusive value chain outcomes.

Agencies like **IFAD and development partners** (e.g. NABARD, OLM, FAO, and NGOs) play a crucial role in convening these actors—through instruments such as **Public-Private-Producer Partnerships (4Ps)**—to foster, strengthen, and scale up agricultural value chain models across Odisha's agro-ecological zones.

Institutional Space for Scaling Up

A critical building block for scaling up VCD results in Odisha is **farmer aggregation**. Regardless of whether the model is producer-driven, buyer-led, or facilitated by intermediaries, collective action among farmers is essential. **Farmer Producer Organizations (FPOs), Self Help Groups (SHGs), and cooperative societies** can reduce transaction costs, improve collective bargaining, and enable value addition through processing, storage, and better market access.

IFAD-supported projects or state-led missions like the **Odisha Livelihoods Mission (OLM)** and **Odisha Millet Mission (OMM)** have already demonstrated success in building institutional capacity among grassroots collectives. These groups can act as the primary agents of scaling up, especially when linked to **processing clusters, agribusiness incubators, and market platforms**.

Stakeholder platforms—such as **District-Level Value Chain Committees** or **Chambers of Commerce sub-cells**—can serve as effective institutional anchors for consensus-building on trade terms, input-output linkages, and shared challenges across the value chain. These have been piloted in tribal and aspirational districts like **Koraput, Kandhamal, and Kalahandi**, with potential to be replicated elsewhere.

Financial and Fiscal Space

To sustain and scale up VCD efforts in Odisha:

- **Public-sector investments** should focus on public goods—rural roads, electricity, market yards, agri-logistics, internet connectivity, research-extension services, and climate-resilient infrastructure.
- **Private-sector investments** should be mobilized for input supply chains, processing units, cold storage, packaging, branding, and transportation.

Scaling up requires alignment between short-term project funding and long-term financial sustainability. Public authorities such as the **Departments of Agriculture & Farmers' Empowerment, Panchayati Raj, and MSME** should be integrated early into the value chain planning and budget processes to ensure continuity.

Instead of relying on unsustainable instruments like **matching grants**, Odisha should promote:

- **Warehouse receipt financing** (already piloted through PACS and MARKFED),
- **Leasing of agri-machinery** through Custom Hiring Centres (CHCs),
- **Input-credit models** facilitated by cooperatives and regional rural banks,
- **Blended finance and equity investments** through agri-startups under the **Startup Odisha initiative**,
- **Guarantee funds** for de-risking MSME agribusiness investments.

Partnership Space

Four critical stakeholder groups for scaling up VCD in Odisha are:

1. **Private Sector:** Input companies, traders, agri-tech startups, food processing units (e.g., seafood processors in Balasore, spice processors in Kandhamal), and corporate retailers.
2. **Producer Organizations:** FPOs, SHGs, and Farmer Clubs promoted by NGOs, NABARD, and OLM.
3. **Donors and Development Partners:** IFAD, World Bank, UNDP, and bilateral donors supporting agriculture, livelihoods, and tribal development projects.
4. **Government at Various Levels:** Line departments, Zilla Parishads, and Gram Panchayats involved in rural development, marketing, and livelihoods.

Partnerships are essential not just for finance, but also for **technology transfer, market linkages**, and **policy advocacy**. The **4Ps model** is highly relevant to Odisha's context, where donors can catalyze inclusive and sustainable agribusinesses by linking producers to buyers

and ensuring government support for semi-public goods like training, quality certification, and post-harvest handling.

Risks and Mitigation Strategies for Scaling Up VCD in Odisha

Risk	Mitigation Strategy (Odisha Context)
Complexity in scaling	Use phased implementation in clusters (e.g., cluster development under RKVY), provide capacity-building through OLM and ATMA.
Market saturation	Monitor supply-demand patterns, promote staggered cropping and inter-cropping systems; link to export and processing markets.
Volatile market demand	Encourage diversified value chains (e.g., millets, spices, dairy, fish); create market forecasting mechanisms.
Financial unsustainability	Gradually shift from subsidies to sustainable instruments like cooperative credit, agri-fintech models.
Reduced bargaining power of producers	Strengthen FPO governance; link FPOs to e-NAM and state procurement agencies.
Rising inequality	Ensure inclusion of women, landless, and tribal households through employment-based or collective marketing models.
Food security risks	Promote integrated farming systems; balance food crops and cash crops; ensure access to PDS.
Environmental degradation	Promote organic and climate-smart practices under Odisha's organic policy; regulate pesticide and water use.
Gender marginalization	Ensure women's ownership of assets and participation in decision-making through SHGs and women-led FPOs.

Monitoring and Evaluation (M&E) for Scaling Up

Scaling-up VCD in Odisha must focus on both **coverage** and **systemic change**. Beyond outputs like number of producers trained or market linkages created, M&E frameworks should capture:

- Increase in **household incomes** and **livelihood resilience**

- Enhanced **market access** for tribal and marginal farmers
- Growth in **public-private investment partnerships**
- Expansion of **VC financing models**
- Progress in **institutionalizing value chain committees** at block and district levels
- Degree of **women's empowerment** and inclusion of vulnerable groups
- Reduction in **post-harvest losses** and increase in **value addition**

Furthermore, continuous monitoring of **risks and externalities**—economic, social, and environmental—can guide course correction during the scaling-up journey.