

How to monitor progress in value chain projects



A 2014 stocktaking by the Policy and Technical Advisory Division (PTA) of IFAD revealed that more than 70 per cent of projects approved between 2011 and 2014 have at least one component following a value chain development (VCD) approach. These projects generally involve several actors along the value chain (VC) and their activities aim to improve the relationships among those actors to make a VC more profitable, pro-poor and sustainable. Simultaneously, IFAD is increasingly considering climate risks and nutritional aspects in project design. This trend makes monitoring and evaluation (M&E) of VC projects challenging. This note helps IFAD design and supervision teams to improve the M&E indicators of VC projects. It complements the materials

of the PTA value chains toolkit available online.¹

Indicators are grouped according to three recommended upgrading strategies in VC projects, which can be adjusted to the country-specific context. In addition, indicators associated with cross-cutting VC activities related, for example, to policy engagement and employment generation are categorized separately as listed in Table 1 (for more details see the PTA How To Do Note on commodity value chain development projects). The list has been enriched through discussions with nutrition experts and through inputs from the Environment and Climate Division's climate experts. Appropriate indicators are suggested for each VCD strategy:

1. **Product and process upgrading** aims at “doing things better and/or bigger”, and may include enhancing the efficiency of production processes as well as product quality development to comply with buyer requirements. Hence indicators here focus on the production stage, but try to capture the relationship with the preceding or next VC actor.
2. **Functional upgrading** looks at the opportunities of a particular actor (e.g. a producers' organization) to move up the VC by taking on new value-adding functions such as bulking, transporting, grading, processing and marketing.
3. **Upgrading of coordination and business models** often implies helping to formalize and make more transparent (through contracts) both horizontal relationships among actors in the same VC segment (e.g. different groups of farmers selling to the same cooperative) and vertical relationships between actors in different VC segments (e.g. between farmers and a processor).
4. **Additional cross-cutting VC activities.** In addition to the upgrading strategies, a set of activities increasingly cut across VC projects. These entail the link between policy engagement and VC projects, as well as implications for employment generation.

Table 1 presents a brief summary of the categories of indicators at both output and outcome levels, while Table 2 includes detailed logical framework indicators.

¹ This note builds on VC stocktaking and analysis of 86 VC projects conducted by the Rural Markets and Enterprises (RME) desk in PTA with support from Isabel de la Peña and Philipp Baumgartner. For more details see the presentation on stocktaking of recent VC portfolio on xdesk page of the RME team, PTA.

Table 1
Dimension measured by indicators per upgrading strategy

VC strategy	1st level results (output)	2nd level results (outcome)
1. Product and process (P&P) upgrading		
	Disseminating techniques and technologies to meet market requirements	Sustainability of techniques and technologies Effectiveness of P&P upgrading
2. Functional upgrading		
	Processing/value-adding infrastructure and capacity	Sustainability of processing infrastructure/capacity Effectiveness of processing infrastructure/capacity
3. Upgrading of coordination and business models		
Horizontal linkages	Creating and strengthening organizations Creating and strengthening service markets	Sustainability of organizations Effectiveness of service provision
Vertical linkages	Establishing linkages among value chain actors: agreements, platforms Establishing market channels Providing access to market information	Effectiveness of linkages and agreements Effectiveness resulting in higher sales Effectiveness of market channels Effectiveness and use of market information
4. Additional cross-cutting VC activities*		
Enabling environment	Policy dialogue Physical access to markets: infrastructure	Effectiveness of policy dialogue Effectiveness and use of infrastructure
Common indicators	Value chain and market studies Employment	Use of value chain studies Sustainability of employment

* This category includes indicators that are common to all types of upgrading strategies.

Table 2
List of potential indicators per VC strategy

(output)	(outcome)
1. Product and process (P&P) upgrading	
<ul style="list-style-type: none"> • Number of producers^a trained in techniques and technologies that allow production to comply with market requirements^{*o} (volume of production, quality, certification, food safety, etc.). • Technologies/products/equipment/inputs introduced to allow production to comply with market requirements^o (quantity, quality, efficiency, food safety, nutrient preservation, bio-fortified seeds, etc.). • Constraints (in quantity, quality, efficiency^b, food safety, etc.) to meet market and VC requirements addressed by the new techniques and technologies.^o • Number of producers sensitized and trained in techniques for climate change adaptation. 	<ul style="list-style-type: none"> • Percentage of producers adopting improved techniques and/or technologies that allow production to comply with market requirements.* • Percentage of producers maintaining techniques and/or technologies that allow production to comply with market requirements after three years.* • Percentage of producers adopting climate change adaptation techniques and technologies. <p>1.2.2 Effectiveness of P&P upgrading: quantity, quality, efficiency</p> <ul style="list-style-type: none"> • Increase in volume of production and/or productivity to meet market requirements. • Increase in share of production that meets market requirements (quality standards, certification, food safety, organic farming, etc.). • Reduction in the rejection rate of produce. • Increase in farm gate price. • Reduction in per unit production costs. • Reduction in pre- and post-harvest losses.

1st level results (output)	2nd level results (outcome)
2. Functional upgrading	
<p>2.1.1 Processing/value-adding infrastructure and capacity</p> <ul style="list-style-type: none"> • Number of processing plants/machinery/enterprises supported to undertake post-harvest and value-added activities (e.g. climate resilient storage, nutrient preserving storage and processing, fortification, refrigerated transport, labelling, etc.). • Number of producers benefiting from the processing plants/machinery/enterprises undertaking value-added activities.** • Number of producers trained in processing or other post-harvest and value-added activities.** 	<p>2.2.1 Sustainability of processing infrastructure/capacity</p> <ul style="list-style-type: none"> • Percentage of the processing plants/machinery/enterprises undertaking post-harvest and value-added activities continue operation beyond third year of establishment. <p>2.2.2 Effectiveness of processing infrastructure/capacity</p> <ul style="list-style-type: none"> • Increase in percentage of produce processed (volume of value added). • Reduction in pre- and post-harvest losses (e.g. product loss, food loss, nutrient loss, etc.). • Increase in percentage of final price and value-added accruing to producers.
3. Upgrading of coordination and business models	
Horizontal linkages	
<p>3.1.1 Creating and strengthening organizations</p> <ul style="list-style-type: none"> • Number of producer organizations/cooperatives/marketing groups/federations established. • Number of producers participating in producer organizations/cooperatives/federations.* • Number of producers trained in crucial aspects for inclusion in VC: management, negotiation, identification of partnership opportunities, market outlooks, etc.* <p>3.1.2 Creating and strengthening service markets</p> <ul style="list-style-type: none"> • Number of local service providers (farm and non-farm) strengthened and trained to provide services that allow production to meet market requirements.° • Number of producers linked to service providers that allow production to meet market requirements.** 	<p>3.2.1 Sustainability of organizations</p> <ul style="list-style-type: none"> • Percentage of producer organizations/cooperatives/marketing groups/federations that continue operation beyond third year of establishment. • Percentage of the producer organizations/cooperatives/marketing groups/federations headed by women and/or young people. <p>3.2.2 Effectiveness of service provision (See product and process upgrading indicators)</p>
Vertical linkages	
<p>3.1.3 Linkages among VC actors</p> <p>Linkages</p> <ul style="list-style-type: none"> • Number of producers linked to existing or new VCs.* • Number of producers linked to other VC actors (input suppliers, processors, buyers, etc.). <p>Agreements</p> <ul style="list-style-type: none"> • Number of partnerships/agreements (contract farming, subcontracting, other schemes) that formalize relationships between producers and other VC actors (input suppliers, processors, buyers). • Number of producers engaged in partnerships and agreements with other VC actors.* • Volume of production under agreements:° <ul style="list-style-type: none"> - For producers - For other VC actors. <p>Platforms</p> <ul style="list-style-type: none"> • Number of multistakeholder platforms established with VC actors to improve coordination, discuss business opportunities and raise challenges. • Number of VC facilitation events and/or meetings of the multistakeholder platform. <p>3.1.4 Market channels</p> <ul style="list-style-type: none"> • Additional market channels established (electronic platform, fair trade, etc.). • Number of producers accessing new market channels. <p>3.1.5 Access to market information</p> <ul style="list-style-type: none"> • Number of producers accessing market information.** • Number of weekly messages shared through information systems with users. 	<p>3.2.3 Effectiveness and sustainability of linkages and agreements</p> <ul style="list-style-type: none"> • Number of partnerships/agreements in operation after three years. • Diversification of client base: <ul style="list-style-type: none"> - For producers: increase in number of clients - For other VC actors: increase in number of small producers as suppliers/increase in volume of production sourced from small producers. • Stability of client base: <ul style="list-style-type: none"> - For producers: number of producers selling to other VC actors for more than three years - For other VC actors: number of smallholder producers as suppliers for more than three years. • Volume of production under agreements after three years: <ul style="list-style-type: none"> - For producers - For other VC actors. <p>3.2.4 Effectiveness resulting in higher sales</p> <ul style="list-style-type: none"> • Increase in sales of producers participating in VCs. • Increase in sales per type of market (institutional, local, national, export, etc.). • Increase in value of production (relative to reference market prices) sold by producers participating in VCs. <p>3.2.5 Effectiveness and sustainability of market channels</p> <ul style="list-style-type: none"> • Increase in sales due to additional market channels. <p>3.2.6 Effectiveness and use of market information</p> <ul style="list-style-type: none"> • Number of producers using and benefiting from information services (e.g. adapting selling decisions to market information).*

1st level results (output)	2nd level results (outcome)
4. Additional cross-cutting VC activities	
Enabling environment	
<p>4.1.1 Policy dialogue</p> <ul style="list-style-type: none"> • Number of policy forums among VC actors held to identify and address constraints at meso and macro level (regulatory framework, trade policy, etc.). • Number of policy papers addressing key VC constraints submitted to government Institutions. <p>4.1.2 Physical access to markets: infrastructure</p> <ul style="list-style-type: none"> • Number of commercial facilities/markets constructed. • Kilometres of rural roads providing access/all-weather access to markets.^o • Number of producers/VC actors benefiting from roads that provide access/all-weather access to markets.*^o • Percentage of infrastructure that is fully serviceable during key VC stages. 	<p>4.2.1 Effectiveness of policy dialogue</p> <ul style="list-style-type: none"> • Number of measures or initiatives adopted to address pro-poor VCD policy-related issues. • Number of pro-poor VCD policies promulgated and/or enforced. • General satisfaction with the policy framework among VC actors (scale 1-6). <p>4.2.2 Effectiveness of infrastructure</p> <ul style="list-style-type: none"> • Reduction in transportation costs/time/losses on improved roads. • Increase in sales in new commercial facilities and markets. • Increase in number of producers selling in commercial facilities and markets.* • Reduction in electricity network failure during key VC stages.
Common indicators	
<p>4.1.3 Studies</p> <ul style="list-style-type: none"> • Number of value chain studies carried out to guide the VCD strategy.^o • Number of studies on VC related dimensions (climate risk analysis, nutrition assessment, gender, etc.). <p>4.1.4. Employment</p> <ul style="list-style-type: none"> • Number of jobs created.^{e*} 	<p>4.2.3 Use of value chain studies</p> <ul style="list-style-type: none"> • Number of VCD strategies that are informed by VC analysis. • Number of VCD strategies that are informed by climate risk analyses, nutrition assessments or nutrition sensitive value chain analysis.^d <p>4.2.4 Sustainability of employment</p> <ul style="list-style-type: none"> • Number of jobs maintained after three years.

Notes: * Disaggregated by sex; ^o Including during challenging climate, weather conditions or periods.^f

a Throughout the list, when an indicator states "number of producers" it can refer to small producers, producer organizations, households, entrepreneurs, microenterprises, etc. Specify the type of actor that is being targeted by each indicator.

b If possible, the indicator will specify the type of market requirement being targeted: Quantity (volume of production/productivity); quality (quality standards, certification, food safety, organic farming, etc.); efficiency (competitive pressures for cost reduction), etc.

c Indicators related to agreements/partnerships can be measured both from the perspective of the small producer and from the perspective of other VC actors that have increased the volume of production sourced from small producers.

d There are a number of possibilities for VCD strategies to be made nutrition sensitive: selecting the commodities for VCD based on the nutritional needs of the target population, including measures to maintain food safety and nutrient content along the VC, incorporating behaviour change communication campaigns that promote consumption of nutritious commodities among the target population, targeting local markets where the nutritionally vulnerable purchase their food, etc. Further guidance on design and implementation of nutrition-sensitive value chains is currently being developed by PTA.


e If possible, disaggregate by target group categories (level of poverty, age, etc.), by stage of the value chain where the jobs are being created (production, processing, service provision, trading, buying, etc.) and by type of job (full-time, seasonal, etc.)

f VC and climate constraints have many interactions that can be addressed to increase efficiency and to diversify value-adding opportunities: timely access to input, production or marketing even during challenging climatic periods, improved storage of products, processing to reduce perishability, timely use of weather and climatic information to meet market demand, timely access to critical information even during adverse climate periods, etc. If possible, disaggregate by target group categories (level of poverty, age, etc.), by stage of the value chain where the jobs are being created (production, processing, service provision, trading, buying, etc.) and by type of job (full-time, seasonal, etc.)

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