



The Donor Committee for Enterprise Development

Case Study in using the DCED Standard Tractor leasing in Nigeria with PrOpCom¹

21st February 2011

This case shows how all the elements of the Standard have been integrated, to a good level of quality, into activities. It also illustrates the translation of results chain, with projected impacts, into a measurement plan.

Part 1: Overview of PrOpCom's Experience with the DCED Standard

Description of the Programme: Promoting Pro-Poor Opportunities in Commodity and Service Markets (PrOpCom) aims to facilitate functionality and efficiency in Nigerian commodity and service markets in ways which assure that these markets benefit the poor. The programme is funded by the UK Department for International Development (DFID). It has a budget of £15 million.²

During its first two years, PrOpCom focused on the rice value chain in Kano and South-western Nigeria, building the capacity of stakeholders within these value chains. The programme has since expanded its activities beyond value chain development and now has seventeen interventions spanning five markets, in areas such as policy support, agricultural mechanisation, agro-inputs and service markets such as enterprise training and financial services.

How and Why PrOpCom Became Involved with the Standard:

A few years into the programme, some interventions lacked clarity and were not based on sufficient market analysis. The staff were also unclear on how certain interventions would lead to poverty alleviation. PrOpCom needed an M&E system which took market analysis as its starting point, linking its interventions logically to impact. As PrOpCom Programme Manager Julian Peach explained, 'Our aim was to improve our strategic and operational management. We needed to plan and monitor our interventions better. There was good practice guidance available from the M4P-world, but the advent of the DCED Standard gave us something to aim for.'

Initially, log frame indicators were the only indicators measured. M&E in PrOpCom was done solely by a specialist who compiled reports on the activities carried out by Catalytic Intervention Managers, and commissioned studies on impact. Intervention Managers rarely used the results chains in their everyday work.

In 2008, PrOpCom put its Catalytic Intervention Managers in charge of monitoring. They were helped by newly hired staff who gathered information in the field, called Activity

¹ We thank Julian Peach and Sadia Ahmed for all their assistance in preparing this case study.

² For more information on PrOpCom, visit www.propcom.org.

Monitors. Meanwhile, a new post of Intervention Monitor was created. The Intervention Monitor gathers impact data from field staff and together with the Director of Communications and Knowledge, feeds this information into cases, success stories and other communication materials.

In 2009, PrOpCom hosted a training course on the Standard. Around this time, Intervention Managers drew their first series of results chains, modelled on an example taken from fellow M4P programme Katalyst. PrOpCom also hired an M&E specialist and three consultants to fine tune results chains for all the programme's interventions and to develop and document the thinking behind them. In August 2010, PrOpCom commissioned a mock audit of compliance with the DCED Standard. The mock audit recommended a few additional steps that the programme should take before going for a fully-fledged audit in 2011.

Cost of Working towards the Standard:

PrOpCom currently has seven M&E staff, five of which are field staff, supporting the Catalytic Intervention Managers. The programme does not have a separate budget for M&E because PrOpCom treats M&E as part of regular programme activities. The precise amount of time and money which the Catalytic Intervention Managers spend on monitoring is not recorded. The monthly staff cost for the M&E team is around US\$11,000³. Other costs incurred were participation in training and events (\$31,300), expert input to preparation of results chains and measurement plans (\$95,700) and mock audit (\$6,300).

Opportunities and Challenges:

Programme staff report finding results chains useful for keeping track of their interventions and keeping their end goals in sight. Drafting results chains has challenged staff to consider how their work can trigger systemic change, and has made it easier for them to present their work to external audiences. However, the process of drafting results chains has not always been an easy one.

As the Catalytic Intervention Managers attempted to draw their first results chains, they worked on a board with each of their activities and subsequent changes written on separate pieces of paper. This made it easier improve the results chains, based on discussion. The exercise showed staff where they were missing important market information, where they needed more information to test their assumptions, and other knowledge gaps. While this exercise initially produced tensions among staff, it proved useful in the long-run.

To help Catalytic Intervention Managers with the technical aspects of M&E, PrOpCom hired three consultants and recruited staff with prior experience of using the Standard. As Julian Peach explains, 'working by yourself takes time away from normal work and can be tiring, lonely and confusing. With some help it's faster, more efficient and effective. Arrange trainings at programme level; hire the right support staff; lead by example by yourself referring to results chains when discussing interventions.' PrOpCom's use of the Standard is about more than establishing a results measurement system; managing interventions with more rigour is a major aim. As the programme has moved towards the DCED Standard, managers have begun to use results measurement more often to inform their decisions on strategy.

³ Pound sterling figures have been converted approximately to US dollars at the current rate of 1.60.

PrOpCom reviews its interventions' progress and associated strategies every quarter. Looking into how or why certain indicators have or have not changed helps to determine what needs to be done to improve the intervention's success. The effects that changes in indicators may have on the results chain are also discussed. If necessary, results chains are modified to reflect the changes.

Part 2: PrOpCom's Work towards Each Component of the Standard

1) Articulating the results chain: PrOpCom has separate results chains for each of its interventions, each drafted by the manager responsible for the relevant intervention. Catalytic Intervention Managers are supported by a Monitoring & Evaluation specialist, Sadia Ahmed, who builds on her previous experience of working with the Standard at Katalyst to provide guidance in drafting the results chain. She notes that although many Catalytic Intervention Managers found drawing results chains a challenge to begin with, they benefited by thinking clearly through the logic of their interventions.

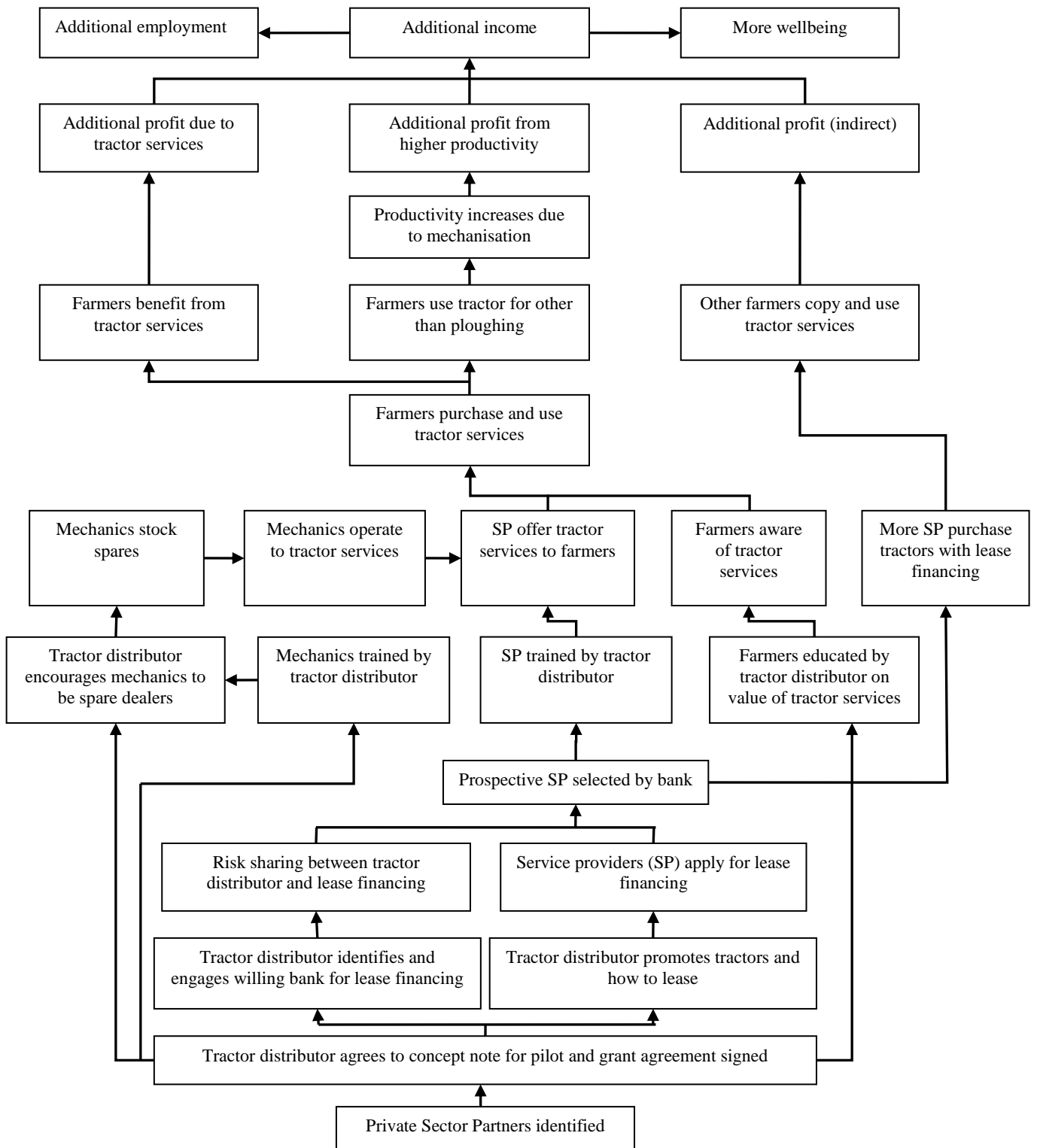
One such intervention aimed to convince a bank to establish a leasing mechanism for tractors. When designing the results chain, the Catalytic Intervention Manager found that some information needed to judge the profitability of providing tractor services was missing. Gathering this information helped to interest several tractor service providers in the leasing scheme. The results chain is presented on the next page.

2) Defining Indicators of Change: The PrOpCom team use both qualitative and quantitative indicators to measure change at each level of the results chains. Even before working towards the Standard the PrOpCom team were using indicators to measure the success of their interventions. The Standard has helped them to show stronger links between the work that they do and the indicators of its success. In some cases, indicators have been changed to better reflect the type of results an intervention is likely to achieve.

For all interventions, the team measures each of the three universal impact indicators (scale, additional income and additional jobs) and an additional indicator, 'private sector investment', i.e. the amount of money invested by private sector partners in the intervention and the time they have spent on the intervention, converted to monetary terms. DFID has asked PrOpCom to measure this additional indicator to see whether target businesses are investing in their own development. It also helps to assess the sustainability of service provision after PrOpCom's support ends.

Staff use a mixture of qualitative and quantitative indicators to assess the sustainability of their interventions at each level in the results chain. For the tractor leasing results chain shown previously, these are some of the ways the programme measures sustainability:

- Profitability of service provider
- Repayment of loan by service provider
- Availability of stock, mechanics and extended warranties (which reduce machine downtime)
- Continuation of the loan model by banks (so more tractors are leased out)



Results chain for establish a leasing mechanism for tractors

The team has also followed recommendations in the Standard on projections of impact for key indicators. Since the programme is due to end in April 2011, projections have been made until the end of the programme and for two years after it ends. Projections allow the team to understand the scale of the programme's interventions.

The table below summarises projected impacts for the tractor leasing intervention:

Summary of Key Impact	Project end date (April 2011)*		Three years from intervention start (Dec-2012)	
	Direct	Indirect	Direct	Indirect
Outreach	3,371		3,371	3,371
Additional Income ⁴ (US\$)	1.73m		5.18m	3.45m
Additional Employment	586		586	586
% female	2%		2%	2%
Private Sector Investment (US\$)	0.14m			

* Intervention started in December 2009 and activities ended in October 2010

- 3) **Measuring Changes in Indicators:** All results chains are accompanied by a measurement plan (see Annex for example). This plan outlines the methodology and indicators used to measure changes caused by the intervention.

As specified in the programme's Monitoring & Evaluation manual⁵, staff regularly collect baseline information where necessary, using primary or secondary data. This baseline information often makes the design of interventions more robust. Staff normally interview a minimum of 10 respondents per local government area. In the event that an intervention is focused in one area only, a sample of at least 20 respondents is interviewed.

- 4) **Measuring Attributable Change:** This is how the programme measures attribution:
- Change would be validated at each level of the results chain, to ensure that each change has taken place because of the action/change described before it in the results chain.
 - Where possible, a control group is established.

The programme also records the contributions of other publicly funded programmes. As Nigeria's agricultural sector is heavily subsidised and there is much government intervention, this has proved useful to avoid taking credit for changes caused by others. It has also helped the programme to identify market distortions. For example, PrOpCom initially decided to target its leasing scheme at potential tractor buyers in Kano State. However, just as the leasing scheme was introduced, the state government indicated that it would provide tractors at a subsidised price and so all the buyers backed out. PrOpCom had to target a different location.

- 5) **Capturing Wider Changes in the System or Market:** Even before PrOpCom adopted the DCED Standard, the programme staff were aware of wider systemic change (other

⁴ NGN figures have been approximately converted to US\$ at the current rate of 150.

⁵ <http://www.value-chains.org/dyn/bds/docs/detail/788/4>

service providers and enterprises copying the practice of the direct beneficiaries). Yet they were unclear how to measure it. Adopting the Standard and drafting the results chain has changed this. Staff now consider how to trigger systemic change when planning new interventions. This focus on market-wide impact has helped staff to make their interventions sustainable.

- 6) **Tracking Programme Costs:** The programme's accounting system tracks all costs, and hence gives an account of the amount spent due to cost sharing with partners, amount spent in managing interventions and overall programme costs. However, it hasn't yet tried to identify specific costs allocated to specific interventions of the programme for which impact has been recorded.
- 7) **Reporting Results:** To ensure that the results chains and their supporting information are easy to find, staff keep them together in a document called the Intervention Guide. This document also contains information on the market, the strategies, the intervention status, the calculations and lists of the sources of information used in it.

One key document is the Intervention Status Report, which includes all of the elements needed to explain impact (strategy, status, results chain, measurement plan, support calculations, business model, log book, next steps etc.)

Another key document is the programme-wide impact report; this is a donor requirement which has been slightly modified to help PrOpCom to comply with the Standard: information on impact is now aggregated; impact is also disaggregated by gender and by direct and indirect beneficiaries and the programme now includes its total expenditure in the report.

- 8) **Managing the System for Results Measurement:** The programme has an [M&E manual](#) which outlines how the results chains are drawn, how measurement plans should be made, how indicators should be selected, how data collection should be done, how aggregation of impact should be done, and how reports should be written. An example Measurement Plan is included as an Annex, below.

A team of one Monitoring and Evaluation specialist, one assistant, two activity monitors and three research officers support the Catalytic Intervention Managers. The research officers are based in different states. They assist with the gathering of information from the field, and with impact assessments.

Annex – Measurement Plan

Level	Impact Logic	Question(s)	Indicator(s)	How	Who	When
Poverty	More wellbeing	How has wellbeing of farmers increased?	Change in food intake Change in health Change in education status of children Change in house	Interviews, survey	Market and/or M&E Team and/or 2nd party	Dec-10
	Additional income	What is the total additional income increased?(see boxes 22,23,24)	Change in income	If needed, additional survey on top of research for box 22, 23, 24	Market and/or M&E Team and/or 2nd party	12/31/2010; repeat Dec 12
	Additional employment	How many labourers lose their job for mechanized farming? How many labourers get additional job for mechanized farming?	No. of labor losing job No. of labor getting job	Interviews, survey among famers	Market and/or M&E Team and/or 2nd party	Dec 10; repeat Dec 12
Core Market	Additional profit (indirect)	What this the additional profit indirect (see box 20)?	Additional profit	Interviews, survey	Market and M&E Team	Dec-11
	Additional profit from higher productivity	What are the additional profits generated from higher productivity?(see box 21)	Increase in profit	In-depth interviews with farmers	Market and/or M&E Team	Dec-10
	Additional profit due to using basic tractor service	What are the additional profits generated only from savings on labour cost and increased land under cultivation)? (see box 18)	Increase in profit	See box 18	Market and/or M&E Team	Dec-10
	Productivity increase due to mechanization (deeper ploughing, better planting distance, etc)	Is there concrete proof for increased productivity due to use mechanized services? How much productivity is increased for using different mechanized tools?	Increase in productivity	In-depth interviews with farmers	Market and/or M&E Team	Dec-10
	Farmers copy from others and purchase tractor service to replace labour and expand cultivation	How many farmers are copying from other farmers, and what do they copy, which service, for which reason (save cost, cultivate more land, etc), involving how much land? Does this lead to more SPs entering the tractor service business?	No, farmers, types of service, amount of land; new SPs entering market	Interviews with farmers, observation new SPs	Market and M&E Team	Dec-10

Annex – Measurement Plan

Level	Impact Logic	Question(s)	Indicator(s)	How	Who	When
	Farmers make use of new services other than ploughing	What are the other agricultural mechanisation services than ploughing? How many farmers make use of these 'new' additional tractor services?	Types of other services used, no. of farmers using new services	Survey among SPs	Market and/or M&E Team	Dec-10
	Farmers get benefit of using tractor services	How much more land are brought under mechanized farming during the <i>major</i> season? How much more land are brought under mechanized farming during the <i>minor</i> season? What are the crops cultivated during those seasons? Do farmers start to cultivate 2 seasons instead of one because of timely delivery of ploughing service? How much money farmers could save for mechanized farming?	Amount of land (major season) Amount of land (minor season) Types of crops No of seasons? Decrease in production cost due to switch to mechanized service	Interviews, surveys with farmers, perhaps SPs	Market and/or M&E Team	Dec-10
	Farmers purchase and make use of tractor service	How many farmers purchase the service + which service? Reason for buying service For which season do they purchase the service + for how much land? For which type of land or crop do they purchase it? Are SPs selling enough services to make profit/repay loan?	No. of farmers, Type and amount of land, type of crops, type of service, reasons, Sales SPs	Interviews, survey with SPs and farmers in two states	Market and M&E Team	Dec-10
	More SPs purchase tractors with financing from banks	SPs crowd in the market to cater to additional (indirect) demand for services from farmers. To which tractor company and bank do they go?	No SPs, which tractor company, which bank	Interviews	Market team	Apr 2011
	Farmers aware of 'extended' possibilities of tractor service	How many farmers are aware of agmech service? Do they have a clear understanding of the benefits of using tractor services, also to use tractor for more than ploughing?	No. of farmers + understanding of service	Interviews with farmers	Market and M&E Team	Aug-10
	SPs offer tractor service to farmers	How many SPs are providing tractor/agmech service? What is their service charge and is it reasonable for farmers? Are they sufficiently active in 'marketing' themselves?	No. of SPs Price of service + 'marketing' activities	Records tractor distributor, observation, interviews	Market and M&E Team	Jul-10

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Level	Impact Logic	Question(s)	Indicator(s)	How	Who	When
	Mechanics operational to support tractor services	What is the operational strategy of the mechanics to provide the repairing services to the tractor SPs? How many mechanics are in business?	No of mechanics + Method of selling the service	Observation, records tractor distributor	Market and M&E Team	Aug-10
	Mechanics stock spare parts	How many of the mechanics have stocked spare parts?	No. of mechanics (stocking)	Observation, records tractor distributor	Market Team	Aug-10
Activities	Farmers sensitized by tractor distributor on benefits of 'extended' tractor service (planting, fertilizer application, boom spraying, harvesting) in 32 field days:	How did tractor distributor make the farmers aware of agmech? Was this activity enough to motivate the farmers? How many farmers have been reached? Do the farmers fall under the coverage of the SPs?	Type of awareness program No of farmers motivated through the awareness program Area of the activity	Observation during field days	Market Team	Aug-10
	SPs (+ operators) trained by tractor distributor on tractor operations and viable business model (incl. night time ploughing)	Was there any training module prepared for the training? What was the content of the training? Who provided the training – tractor distributor person or outsider? How many SPs have been trained?	Prepared/ready training module Identity of the trainer No. of SPs trained	Observation during training, training module , tractor distributor records	Market Team	Jul-10
	Tractor distributor encourages mechanics to become accredited spare part dealers	How many of the mechanics have become spare parts dealer? What are the incentives for the mechanics to become spare parts dealers?	No. of spare parts dealers Incentives	Discussion with tractor distributor	Market Team	Aug-10
	Mechanics trained by tractor distributor to support tractor service and reduce risk to banks	What are the selection criteria of choosing the mechanics? How many of them have been trained? Is there enough business incentive for them?	Proper selection, no. of mechanics trained, incentive structure	Observation, discussion with tractor distributor, Analysis of incentive	Market Team	Aug-10

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Level	Impact Logic	Question(s)	Indicator(s)	How	Who	When
	Prospective SPs profiled and selected by FI, sign lease agreement and receive tractor	How many SPs have been selected by the bank(s) for lease financing? What are the terms & conditions of agreement between the SPs and the bank(s)? When did the SPs receive the tractors?	No of SPs selected by the banks Terms & conditions of the agreement Time of receiving the tractor	Records tractor distributor, bank, observation	Market team	Jul-10
	PrOpCom produces and airs a movie on the financial benefits of providing and using tractor services and promotes all tractor suppliers	Is the movie made? Who are the target audiences? How are they being reached?	Movie, Characteristics of target audiences Airing times, and methods	Observation	Market team	Aug-10
	Service providers apply for a lease financing arrangement from Lotus Capital to purchase tractors from tractor distributor	How many SPs agree to take up lease arrangement to purchase tractor and from where (which state) are they?	No of SPs + geographical location	Records tractor distributor, bank	Market team	Mar-10
	Risk sharing deal reached between tractor distributor and FI on lease financing (incl. extension warranty, minimum down time guarantee + compensation extra down time, replacement SP in case of default)	What are the details of the agreement between tractor distributor and First Bank?	Details of the agreement	Deal between tractor distributor and bank	Market teams	Jun-10
	Tractor distributor promotes its tractors and the various commercial uses of tractors to prospective service providers, and suggests methods of financing from Financial Institutions	How do prospective SPs react to 'offer' tractor distributor + potential new uses tractor? Are they willing to consider some form of loan to buy tractor from tractor distributor	Interest and readiness of prospective SPs	Presence in meeting	Market Team	Jan-10
	Tractor distributor identifies and engages with a financial institution (FI) willing to develop lease finance product for purchase of tractors by Service Providers	Which bank(s) are ready to think about lease arrangement for tractors?	Bank	Report on talks between tractor distributor and banks	Market tam	Jan-10

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Level	Impact Logic	Question(s)	Indicator(s)	How	Who	When
	Tractor distributor agrees to concept note for pilot of 100 tractors and grant agreement signed	Did they simply agree with the concept note or added/ improvised the idea? What it the final 'plan'? How did they take the cost sharing idea of intervention?	Stance of the partner during deal making	Deal making with the partner	Market	Feb-10
	Private sector partner with interest to sell tractors commercially identified	Who are the potential private sector partners? How many of them are interested in the idea?	No. of interested partner	Market intelligence	Market Team	Jun-09