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Enabling poor rural people to overcome poverty

Increasing Performance of the Cassava Industry in West and Central Africa Region (IPCI)

Mission to Republic of Congo

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English version

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IFAD- WEST AND CENTRAL AFRICA DIVISION

Introduction

The purpose of this mission was to familiarise the NRI Team with IFAD activities in the Republic of Congo (RC) – particularly the Programme D'appui au Developoppement des Filieres Agricoles (PADEF). At the request of the Country Office the mission was timed to coincide with the IFAD project supervision mission.

The NRI Team consisted of four members, two from NRI and two from the SNV Programme office in the Democratic Republic of Congo (DRC). The Team met with the IFAD local staff, members of the PADEF Supervision Team and various Government officials associated with the PADEF Supervision Team.

The NRI Team presented the project to a meeting of the Agricultural Group of the Supervision Mission and the National Programme Coordinator. A wrap-up meeting was held in Brazzaville.

A field visit was made to the Oyo Region in Northern RC where the Regional IFAD team was met and a preliminary visit to a cassava-processing factory conducted. The project concept was presented.

A second field visit was made to the Chinese Agricultural Technology Demonstration Centre South of Brazzaville. The NRI Team is working closely with the Chinese Government on a separate UK Department for International Development (Dfid) funded programme (AGRI-TT) and discussions were held on potential collaboration and appropriate technology exchange.

The NRI/SNV Team also visited 'Agricongo', an integrated processing and training centre now largely defunct, but which has an FAO-funded pilot 'Chikwangue' processing plant which was abandoned in 1986. The result of this pilot activity was written up by FAO (see http://www.fao.org/docrep/004/y1931m/y1931m04.htm#TopOfPage). The research did not consider the economic aspects of 'Chikwangue' production. Industrialising 'Chikwangue' production may be another way of promoting demand for excess cassava that could be explored. Similarly, 'Gari' is consumed in RC but not produced. Introducing small scale 'Gari' production might also show promise.

The Team met with one of the only agricultural equipment fabricators in RC, Mr Tengue Tengue (see notes at Annex 1). He is so frustrated with the business environment in RC he plans to emigrate. There is almost no equipment fabrication at scale in Brazzaville. This means that any mechanisation of processing would need to be accompanied by support to local fabrication efforts.

Following discussions with the Country Programme Manager and her Team the following draft actions were agreed for 2015 and beyond.

Plans for implementation

The PADEF project has an interesting set of challenges. They are in the process of substantially increasing the volume of cassava in RC based on improved varieties and better management practices. PADEF works throughout the country at the moment, so the impact will also be highly dispersed. Currently, there are no concrete plans for addressing this future expected surplus, which, according to IFAD local staff, could be as much as 45,000 mt per annum.

There is only one cassava processing plant of any scale in RC. This is a fermented cassava flour plant in Oyo, an initiative of the President called 'NG Manioc'. This plant has an annual capacity (intake) of 8,460 mt fresh cassava. However, it is currently only operating at something like 90 mt per year. There are a number of reasons for this including:

Technical deficiencies

Peeling:

They have an old mechanical peeler which is not working particularly well, this is likely to be due mainly to the peeler being designed originally for Irish potato a very different crop to cassava. Spare parts are needed.

Fermentation:

The hoped-for 2 day fermentation process is taking up to 10 days. This is said to be caused by the low temperatures in the fermenting shed.

Drying:

Various drying solutions have been tried. They have a large cabinet dryer using diesel as fuel which is no longer in use. They have just received another electric cabinet dryer. The fuel efficiency of this drying solution is unknown but it is likely to require a high energy input per kg of product dried. There is no mechanical de-watering step prior to drying.

Management challenges:

The current supply strategy of NG Manioc is built up on a mixture of supply from the factories home-farm (50%) and production from larger farmers (>5ha) under contract. They plan to buy from small farmers, but have found this a challenge to date.

The day-to-day management and business arrangements are opaque; and were not shared with the team on this short mission. Clearly, working capital is a problem. The operation was part of a larger company, but at some point has been spun off.

The way forward:

We will need to understand more about the operation of NG Manioc in three areas:

Supply. How can they more efficiently manage root delivery to the factory and engage substantially more small-holder farmers who are beneficiaries of PADEF?

Production. How can the existing facility be optimised? Can the speed of fermentation be increased? What is the ideal and most cost efficient drying method?

Demand. It is claimed that everything that is produced can be sold. Currently, this seems to be guesswork. A better understanding of the market potential for fermented cassava flour is needed. What is the total market size? Will increased production compete with existing production by small-scale flour processors? Is the current selling price optimal? Are there markets for other types of flour from the same plant? Might export be feasible in the future?

Discussion

PADEF will, if successful, substantially increase the volume of cassava available in RC. Without some consideration as to how this excess material will be absorbed by the food economy, either a large decline in farm gate price (due to oversupply) or a great deal of on-farm loss will occur. Given the poor state of rural infrastructure and the general fragility of the economy, the second affect seems more likely. If this happens, it will be hard to motivate farmers to collaborate with future initiatives.

In our view, PADEF need to give some urgent consideration to the processing of cassava. An investment now will have important demand-pull impacts down-stream when improved yields start to kick-in at scale. Plans outlined here to work with the only cassava processing facility will, even if successful, only be sufficient to demonstrate what can be done. Plans for developing new cassava processing operations are needed at village, small factory and, possible large enterprise, levels.

An initial step would be to assess the potential scale of demand for cassava and cassava starch in RC and beyond its borders. There seems to be almost no industrial base in RC. This leaves domestic consumption through, say 'Chikwangue' (fermented cassava 'bread), 'Benye' (small doughnuts) and 'Chapatti'. However, a strategy built upon replacement of imported wheat should be treated with caution: we are told that imported wheat is heavily subsidised. This greatly limits the scope for absorption of new supplies of cassava and cassava starch products in the domestic economy. There may be potential for the introduction of High Quality Cassava Flour (HQCF), a specific, processed, cassava flour product of some importance in Nigeria. However, the economics of supply of this product need to be tested on paper before an investment is made.

The IPCI Team discussed developing a RC **Gari Industry** with PADEF. There are plans to build 'Agricultural Business Centres' to demonstrate cassava processing. These will be designed after a study in June and construction will start in August. The PADEF mid-term review is scheduled for October. Input from IPCI before this mission on the way forward for cassava processing would be valuable.

PADEF has an important, but currently not well functioning, micro-finance component. IPCI partner SNV has a successful micro-finance/cassava project in Equatorial Province, DRC and has finalized a study on the micro-finance needs of the cassava sub-sector in DRC's Bas Congo Province in July 2015. We propose, therefore, using this as a 'case study' (Activity 2.2) and possibly arranging cross-visits to learn from the SNV experience.

Essentially, what RC (and PADEF) is missing is a strategic sector plan for cassava. Some studies have been done, but the work to date has been piecemeal. Some of the proposed IPCI activities could contribute to a future sector strategy for cassava.

Agreed activities

Looking through the approved IPCI Annual Workplan and Programme for 2015 the following activities were agreed (Nb: numbers refer to activities in the agreed Workplan):

1.1 Technical and advisory support

Should tie in to results of 1.2 (below).

For ad hoc assistance it was agreed that all requests should be channelled through the NPC.

1.2 Market surveys

We propose a small study of the market to assess the potential for a range of cassava products (see 2.3 below).

1.3 Training events

It is too early in the process to define training 'events'. We propose that this is tied to the PPP at 2.3 and defined later in the project as needed.

2.1 Support waste energy plant – Ghana

Not relevant for this mission

2.2 Case studies

We think that there is an opportunity to use the SNV micro-finance/cassava marketing operation in Equatorial Province, DRC, as one of our case studies (see above).

2.3 PPP

We see three initial opportunities for developing future PPP's for cassava processing in RC:

a) Make the existing cassava plant in Oyo function efficiently as a business;
b) Develop an upgraded 'Chickwangue' process; and,
c) Introduce small scale 'Gari' production

We therefore propose the following:

An initial survey mission in 2015. This mission would have two main tasks: to develop a basic plan for NG Manioc based on technical assessment and review of the market potential; and, review the potential for including different types of small scale cassava processing in the 'Business Centres' concept of PADEF.

We would propose that the team be made of a Food technologies/engineer and a value chain economist.

Draft Terms of Reference

- Research the demand for fermented cassava flour and its alternatives (Task 1.2 above) – possibly including hiring local researchers to conduct additional follow-up research after the mission.
- Develop an initial business model and plan for 'NG Manioc'
- Review the technical aspects of the production line and recommend short and long-term fixes (including a costed plan).
- Review the institutional arrangements for managing small-holder cassava supply and propose interventions.
- Advise on the technical and economic options for different types of cassava processing to be demonstrated at the proposed 'Business Centres'.

3.1 Regional Forum

There is currently only one, partially functioning, cassava processing operation in RC and only one fabricator. A Forum would be premature, although the strategic importance of cassava suggests that it will be needed in future.

3.2 Equipment database

Almost no large scale cassava processing equipment is available in RC. The mission was too short to allow smaller scale equipment to be surveyed.

We propose to roll-out to RC the equipment information collection application once it has been tested in Nigeria.

Conclusions and recommendations

We have a plan for activities in the Republic of Congo for 2015 and beyond focussed on working with the proposed Business Centres and rejuvenating the cassava processing plant in Oyo.

Follow-up:

Teleconference with IFAD RC/DRC Team to share findings.

Action: BB

Share report with other Team members and seek comments.

Action: BB

Identify suitable NRI and SNV staff for the initial survey mission

Action: BB

Draft ToRs for the initial survey mission and validate with IFAD/PADEF

Action: BB and AG

Annex 1: Notes on a meeting with Tsengue Tsengue, Managing Director ICI Challenge Futura

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No fabricators of any scale in RC for several reasons:

- No secure demand of any kind at any scale
- No ancillary industries supplying parts – means that all parts have to be made in-house
- High cost of imports of materials – high import duties.
- Almost complete absence of skilled workers
- No finance available to help industry buy machines
- No enabling policies e.g., advantageous finance, tax breaks etc.
- High levels of rent seeking from officials.
- Low purchasing power – no schemes to support buyers of strategic agri-processing equipment