

Minutes

Fourth regular meeting of the Action Coordination Committee of the Western Pacific NARI EU-ARD project

17 December 2013, Lae, PNG

Venue: Head Office of the National Agricultural Research Institute (NARI)

Present on the meeting were:

1. Dr Sergie Bang, NARI, chairperson
2. Dr. Norah Omot, NARI, leader of socio-economics component of the project, member
3. Mr. Elick Guaf, representing Dr. Birte Komolong, NARI, leader of crop improvement component of the project, member
4. Dr. Peter Gendua, NARI, leader of the crop diversification component, member
5. Mr. Johannes Pakatul, NARI, soil moisture and conservation expert, Member
6. Mr. Jules Damutalau, MAL, acting project sub-coordinator for SI, member
7. Mr. Peter Iesul, DARD, project sub-coordinator for VU, member
8. Dr. Roger Malapa, VARTC, project senior scientist for VU, member
9. Dr. Workneh Ayalew, NARI, action coordinator & leader of the livestock component, member
10. Mr. Seniorl Anzu, NARI, representing the component leader for information exchange and networking, member
11. Ms Imelda Kavuu, Programme Officer - Rural Development, Delegation of the European Union in Papua New Guinea, representing Mr. Clement Bourse, observer.

Apologies:

1. Mr. Joshua Ryan, NARI, M&E expert, member, on study-leave in Australia.
2. Dr. Dominik Ruffeis, BOKU-NARI, water systems expert, member
3. Dr. Birte Komolong, on duty travel
4. Mr. Jimi Saelea, required by his office to attend to another duty (Parliamentary process)

Meeting called to order at 9:10am.

Agenda

The following agenda items were tabled and approved for deliberation:

1. Follow up of outstanding matters from the third meeting of the Committee
2. Highlights of activities during year 3 of the project:
 - 2.1. Progress of project implementation
 - 2.2. Updates on the project M&E plan (by Workneh for Birte)
 - 2.3. Brief update from Solomon Islands (by Jules)
 - 2.4. Brief updates from Vanuatu (by Peter)
3. Status of project finances
4. Update on the External Project Progress Monitoring mission
5. Update on quarterly consultations by the project team
6. Action plan for Year 4
7. AOB

With no additional agenda items suggested for inclusion, and the tabled agenda items approved without modification, the meeting went ahead with deliberations.

Agenda 1: Follow up of outstanding administrative matters from the last meeting:

1. MAL urged to fast-track the pending rehabilitation work at the MAL tissue culture laboratory in Honiara to allow starting planned activities.

Briefing:

- Project has used up all allocated budget for the rehabilitation work. The issue of type of shelf to set up in the lab has been dragging the completion. Even though a lower cost wooden polished shelving to be made in Honiara would serve the purpose as well, Helen has been insisting that such a shelf needs to be imported from overseas at high cost and longer timeframe. Direct interventions by the Action coordinator did not lead to fruition.
- Latest update from SI country sub-coordinator Jules: Helen has been on leave and Jules was unable to get the latest status information from her. But he reported that the Acting Permanent Secretary of MAL, Mr. Jimi Saelea, has signed a cheque to pay for a shelf.
- Elick stressed that the tissue culture lab is key to planned sweet potato related work in Solomon Islands, in particular for virus indexing and maintaining of tissue culture material.

Resolution:

Jules is to provide an update on the latest status of the lab to ACC members by Monday 20 January 2014.

2. Opportunities for using locally available technological options should not be missed, especially when target communities have expressed need for technical assistance whereas available staff time is very limited to cater for these needs.

Briefing:

Project team encouraged facilitating country level consultation to refine site level plans for SI and VU like the one planned for PNG on 13 and 14 May to better coordinate activities and enhance effective implementation of these plans without necessarily relying on Outputs of related activities in PNG.

Peter Iesul reported that the VU country team held a meeting the previous week, discuss this point and decided to incorporate some additional activities into the site plans. He reported that the updated site plans are being finalised for submission.

Jules also reported that the SI country team did not hold such a meeting but some members have made strong recommendations to incorporate two specific activities in the site plans: 1) promotion of honey bees where needed and 2) promotion of smallholder goat farming at Aruligho. Similar recommendation was given to promote bread fruit as an alternative diversification crop. These additional activities will be incorporated into the site plans for SI.

Resolution:

Committee urged country teams to speed up ownership of the operational plans and enrich them with local opportunities.

Peter Iesul and Jules Damutalau to promptly finalise the updated site plans, have them endorsed by the country teams and submit the revised final site plans to the project office by 20 January 2014.

3. Inability of World Vision – Vanuatu to continue to be involved in project activities. The project team to explore alternative arrangements and consider sub-contracting such institutions to handle the pending tasks.

Briefing:

- Project team in consultation with DARD in VU has requested ARDA-Vanuaru to step in. ADRA has not yet made a final decision; their involvement is contingent on them receiving grant for a related project at the project site (Middlebush).
- BOKU considering assigning a student researcher to work at Middlebush on the subject and lead implementation of the planned activities.

Resolution:

Committee advised the project team to proceed with implementation with or without ADRA.

The BOKU research student is welcome to take lead in implementation of the planned work at Middlebush.

4. The project office should consider up-to-date budget balance to component leaders at least on budget lines that are clearly dedicated to specific components.

Briefing:

- Project office has been unable to generate the monthly budget updates due to work load; the admin assistant does not have time to regularly update the database and provide a report.
- A recent change in budget coding has led to substantial expenditure allocation errors that needed to be checked one by one, and this took a lot of time, consequently delaying the regular budget updates.

Resolution:

Committee to recommend to NARI to consider assigning an additional administrative staff to provide occasional support on needs basis. In particular Mrs. Mana Mazi, who has got experience in administering the ACP funded capacity building components, would be a suitable support staff.

Project office to start generating monthly budget updates to Component leaders.

5. The pending decision on whether and how many rain-out shelters to build for purposes of the project should be expedited so as to make sure the planned activities are implemented and allocated budget is put to good use. This matter should be taken up by the expert teams in the crop improvement, crop diversification and soil moisture management, reach a final decision and communicate the same to the project office.

Briefing:

- Matter is still pending; design of the rain-out shelter completed and the detailed costing is being done. Construction and procurement will take time.
- It is reported that the centre management at Aiyura does not see the need for such a facility at Aiyura, based on which plan was set to construct one rain-out shelter at Bubia.
- A rough estimate of the cost of such a structure at Bubia is K80 thousand.
- Elick is closely following up the matter.

Resolution:

Committee urges project team to fast track the construction process.

Agenda 2: Highlights of activities during year 3 of the project**Briefing:****2.1 Highlights of activities:**

- Year 2 technical and financial reports submitted to the EU were accepted. One query on finances was resolved.
- Year 3 budget was released in November 2013, but the delay did not affect project progress.
- Overall project performance remained per plan and timeframe. No major departures from plan. Notable delays:
 - Signing of sub-contracts with World Vision (PNG, Vanuatu)
 - Procurement of fixed assets : rain-out shelter, meteorological equipment
- Volume of project activities has been limited by availability of competent field staff, especially in SI and VU.
- External Project Progress Monitoring Mission took place between 04 and 08 November 2013; details in separate agenda item.
- Site plans finalised and M&E plan updated.
- Project communication and visibility activities continued:
 - Acknowledgement of budget support from EU and partners on all official occasions
 - Publicity articles: newspapers, newsletters, website
 - Project website: <http://ard.nari.org.pg/activities/index/>
 - Office signboards, asset stickers
 - Project site signboards
 - Project letterhead being used for official communication and certificates for training.

2.2 Progress in implementation by components

2.2.1 Project coordination

Activity 1. Action coordination, planning and review

- Action Steering Committee meetings conducted
- Annual Progress Review meetings (Project staff) conducted
- Quarterly Project Progress monitoring meetings conducted
- Visibility actions implemented according to plan
- Economic evaluation of project, yet to be determined in consultation with BOKU. Currently BOKU is considering engaging a consultant economist residing in the USA. This consultant (Mr. Christian Treitler) happens to be the brother of the previous expert (Roland Treitler) who moved on to another job. The project office is not clear on whether the new consultant travelling from his current base in the USA can be legitimately engaged for this task, as he will have to travel from outside the EU and project countries to the project countries.

While discussing this agenda items, the Committee was informed that:

- 1) in SI, the project admin assistant (Annie) of MAL is considering resigning her position to take up a technical job within MAL after her graduation from SICHE in Honiara in the coming months, and the project sub-coordinator for SI indicated that her salaries on the new position will be paid by the project.
- 2) Peter Iesul of DARD is considering going for overseas graduate training in China from early next year.
- 3) Dr. Roger Malapa suggested that his position as senior project scientist in VU be given back to Mr. James Wasi as he is now back in his former position at DARD and that he is finding it difficult to regularly contribute to project activities from his distant location at Santo.

Resolution:

- 1. If Annie of MAL is to leave her position as project admin assistant, she should tender her resignation from her substantive position on the project. There is no guarantee that she will be employed by the project again, as this depends on the outcome of discussions between the project office in NARI and MAL as a partner institution, given that all the four agreed positions that the project is to pay 100% of salaries are already filled and that any new position needs to be agreed upon between the parties. MAL should immediately initiate the process**

of recruiting a competent administrative assistant to replace Annie immediately after her departure.

2. If Mr. Peter Iesul is to leave his position as project sub-coordinator in VU, it is appropriate that he should also tender his letter of resignation ahead of time for the project to initiate the process to have his replacement through DARD. However, Peter is encouraged to pursue his graduate studies within the framework of this project, taking available research opportunities at the project sites in VU. In that regard available project funds research, travel and conference participation can be used to cover part of essential costs of the graduate training.
3. Dr. Malapa was appointed to the position of project senior scientist in Vanuatu by the Director of DARD. Mr. Iesul and Dr. Malapa are advised to discuss this matter with the Director of DARD and inform the final decision to the project office.

2.2.2 Socio-economics:

Briefing:

Activity 3. Action Inception , Mid-term & Completion Workshops

- External project Progress Monitoring Mission conducted as determined by EU

Activity 3: Annual Community feedback meetings held in pilot sites in PNG, Si, Vu

Briefing (see Annex 1 for details):

- Started at three sites in PNG
- Will continue next year
- Data collected is mostly qualitative, including the patterns of decision making at community level, local governance, social and cultural dynamics of the communities that affect their collective actions.
- It was observed that in project sites where Ward Councillors were directly involved in facilitating project implementation like in Murukanam and Derin, progress has been much better than in sites like Kopafu where the councillors are not involved at all. Project should check and take account of this pattern in other project sites.

Resolution:

Regarding the pending issue of economic evaluation of project activities by BOKU, the meeting sought advice from Ms. Imelda Kavuu of the Delegation of the EU to PNG, who agreed to check the guidelines with appropriate officers in the Delegation.

2.2.2 Soil water and fertility management

Briefing (see Annex 2 for details):

- Activity 2. Assessment of current and future impacts of climate change with respect to excess, deficit soil water content and salinity in PNG, SI and Vu and to identify suitable technologies to mitigate adverse impacts
- Activity 3. Develop and assess water harvesting methods, ground water availability & dynamics, irrigation techniques and management strategies at pilot sites in target communities in drought vulnerable parts of PNG, SI & Vu

Activity 4. Develop and assess soil water and soil management technologies under excess, deficit soil water and saline conditions at benchmark sites in target communities of PNG, SI & Vu

2.2.3 Crop improvement and diversification

Briefing (see Annex 3 for details):

- Activity 1. Source alternative sweet potato varieties, crops and crop varieties from national and international collections which are tolerant to precipitation excesses or deficits or saline soil conditions
- Activity 2. Screening of indigenous germplasm, locally bred and imported varieties of sweet potato and other crops/crop varieties under simulated conditions (in vivo and in vitro) to assess tolerance to drought, moisture excess and salinity condition, and to identify promising varieties: work is taking longer time than expected due to the more time taken to assemble and standardize the planting materials.
- Activity 3. Validation and piloting of sweet potato adaptability to different stresses at pilot sites and introduction of other crops and crop varieties in target communities in PNG, SI and Vu

2.2.4 Livestock diversification

Briefing (see Annex 4 for details):

- Activity 1. Assessing the potential for improving farm productivity through diversifying livestock assets and improved cyclical use of crop and livestock inputs in

situations where excess rainfall, moisture deficit or soil salinity conditions are problematic

- Activity 2. Sourcing and identifying forages tolerant of excess moisture and saline soil conditions, e.g. grasses, legumes and multipurpose shrubs such as Mulberry
- Activity 3. Pilot test diversified livestock feeding systems and husbandry practices in smallholder communities in target communities in PNG, SI and Vu

2.2.5 information/knowledge sharing and networking

- Output 6: Linkages and information/knowledge sharing mechanisms established and/or strengthened between researchers, extension providers and smallholders providing suitable conditions for smallholder participation/input in the research process and for dissemination/out-scaling of new research-based technologies to smallholders in PNG, SI and Vu

2.3 M&E plan of the project

Briefing

- M&E plan completed after site plans have been finalised for all sites in PNG, and with the available drafts from SI and VU
- Discussed further by the project team in quarterly review meetings in August and November.
- Plan is now being implemented.
- Needs full uptake in SI and VU, but the planned country consultations not yet completed.
- Printed and electronic copies available.

2.4 Progress of the project in Solomon Islands (by Jules Damutalau)

Briefing:

The overview of the project activity implemented per site in Solomon Islands is positive. Most project activities planned for the year 2013 were executed though some of these activities were delayed primarily due to confusion in the communication line and also due to limited officers to do the work on the ground. This brief report will highlight activities that were planned and implemented during quarters 3 and 4.

Site 1. Aruligho

Output 1: Farmer-preferred drought tolerant sweet potato varieties identified and available to the Aruligho community: The Phenological evaluation of SPC and Local varieties for drought tolerant (M1) is still in progress. On-farm evaluation at the site will be begun in early 2014.

Output 2: Capacity for growing cassava using improved locally acceptable production practices and farmer-selected varieties increased in the Aruligho Community: Three (3) on farm plots have been established on site. These plots accommodate 6 SPC/MAL cassava varieties and the 2 best performing local varieties which will be evaluated with the other varieties. Local cassava cultivation practices were also documented. The 3 cassava demonstration plots are assessed and maintained regularly each month.

Output 3: Capacity for growing yam using improved locally acceptable production practices and farmer-selected varieties increased in the Aruligho community: 3 demonstration plots were also established at Aruligho with 3 lead farmers as per planned. These yam plots are also well maintained by the field staff from Honiara. Data on local cultivation practices have been collected and documented.

Output 4: Increased capacity of interested farmers in Aruligho community for using improved chicken and pig feeding and management practices: Training has been conducted for Broiler and Village poultry lead farmers. A good number of men and women attended the training which covers areas of feeding and housing. Housing materials were provided for lead farmers for both poultries species. Training on silage for piggery farmers has also been conducted.

Output 5: Increased capacity by participating farmers to use improved soil management practices addressing constraints of soil erosion, water deficit and Fertility: Initial assessments have already been conducted by a student from BOKU. Her findings will serve as a reference to develop project research activities. Most of the activities for soil and water will be implemented next year.

Site 2. Buma

Output 1: Increased capacity by participating farmers to use improved soil fertility management practices: Information on soil, soil water, farming methods, etc., have been collected and documented. Implementation of activities will commence in Q1 and Q2 of next year 2014.

Output 2: Impact of salt water inundation on soil properties analyzed and farmers' capacity to deal with potential adverse impacts enhanced: A team of surveyors are in Buma from 6th to 21st December, 2013 carrying out Sea Level Rise (SLR) Survey. Their task includes mapping (contour - 0.5, 1m) of the whole area, assess for water table and conducting of CC awareness.

This is very important in assessing the impacts of sea level rise to soil, soil water and gardening.

Output 3: Increased capacity of interested farmers in Buma community for using improved chicken and pig feeding and management practices: Series of Training for Broiler and Village poultry has been conducted in Buma in Q3 of this year and the training is basically on feeding, housing and general hygiene. Village poultry farmers have also received village poultry chick distributed from KGA. Other potential livestock production for Buma would be Honey bee, Ducks, goat and Tilapia production. A couple of farmers in Buma have dug ponds and started farming tilapia. Practical knowledge and skill is something they are lacking.

Output 4: Farmer-preferred excess moisture tolerant sweet potato varieties identified and available to the Buma community: Planned activities for this Output will begin in January 2014; however, preparing the sweet potato on farm demonstration has started already.

Output 5: Capacity for growing yam using improved locally acceptable production practices and farmer-selected varieties increased in the Buma community: Training on mini-setting and nursery of yam (Rotundata) has already been conducted and the crops have been transplanted in the field as well with different treatments (staking, mini-sett size and planting densities). Assessment and monitoring of the plots is done regularly once every month.

Output 6: Capacity for growing cassava using improved locally acceptable production practices and farmer-selected varieties increased in the Buma Community: Demonstration and evaluation of 6 different varieties of cassava plus 2 local varieties have been established at Buma, 3 groups of farmers are currently looking after the 3 plots of cassava. These plots are monitored monthly.

Output 7: Capacity for more efficient propagation of local breadfruit trees enhanced in Buma community using a rapid propagation method: This output will depend entirely on any success story from Hisiu village in PNG otherwise the local team can also find ways to carry out this task.

Site 3. Hunda & Kena

Output 1: Increased capacity by participating farmers to use improved soil management practices addressing constraints of soil erosion, water deficit and fertility: Initial assessments have already been conducted by a student from BOKU. Her findings will serve as a reference to develop project activities. The activities for soil and water will be implemented next year.

Output 2: Farmer-preferred excess moisture tolerant sweet potato varieties identified and available to the Hunda & Kena community: Planned activities for this Output will begin in January 2014; however, preparing the sweet potato on farm demonstration has started.

Output 3: Capacity for growing yam using improved locally acceptable production practices and farmer-selected varieties increased in the Hunda & Kena community: Training on mini-setting and nursery of yam (Rotundata) has already been conducted and the crops have been transplanted in the field as well with different treatments (staking, mini-sett size and planting densities)

Output 4: Capacity for growing cassava using improved locally acceptable production practices and farmer-selected varieties increased in the Hunda & Kena Community: 2 demonstration plots have been established and maintained. From these 2 plots the farmers will evaluate the 6 different varieties of cassava plus 2 local varieties. The plots are monitored and assessed monthly

Output 5: Livestock holdings of interested farmers in Hunda & Kena community diversified and capacity for livestock management improved: Training on village poultry husbandry has been conducted in Hunda & Kena in Q3 of this year and the training is specifically on feeding, housing and general hygiene. Village poultry farmers have also received a total of 70 village poultry chicks distributed from KGA. Other potential livestock production for Hunda & Kena would be ducks. Emphasis on piggery will start in the New Year. The slow setting up of house structures has been a major setback to flow of activities; 4 out of the 8 village poultry farmers have completed the chicken houses which are up and running.

Lessons learnt

1. Farmers participation: a gradual decline in the number of people attending community trainings and workshops has been observed at all project sites. The farmers need to be informed regularly on activities as planned per quarter and that they really need to know about the project. Farmers have also suggested that technical officers need to spend a good time with them after training and workshops so as to build up their confidence in practicing the learnt skills.

2. Institutional support: the partner institution (MAL) with its limited available staff and resources have tried to facilitate implementation of the project activities at site level. Resources such as OBM Engine and vehicles are not always available to use especially in Gizo and Auki. Suggestions were made by the local team if it is possible the project can provide a boat for Ringi and Hunda & Kena and OBM engine and a boat for Auki and Buma to facilitate regular transport.

Administrative updates

1. Recruitment of additional staff: the local team will need to recruit three (3) additional fulltime project staff to work as crop field technician, Aruligho site technician and Assistant administrator. In 2014 the project anticipates a lot of activities to be implemented on site thus these new recruits will help cushion the more and greater responsibilities ahead. However, this is a matter needs approval from this committee.
2. Tissue Culture Lab: The local team was not able to discuss with Helen (Acting Director of Research) on the issues relating to growth room as she has been on leave. However, the Acting Permanent Secretary of MAL has informed us that he has already signed a payment for the shelves. This will be confirmed in the coming weeks.
3. Communication Plan: the project team in Solomon Islands would also want to develop a way where project officers can frequently and easily communicate with each other from sites and Honiara.

Resolution:

1. **The suggestion to include honey bees and goat production in the site plans is commendable; however, NARI may not be able provide technical guidance on honey production. Breeding stock of goats needs to be sourced from within Solomon Islands.**
2. **The idea of promoting inland pond fish farming at Buma may be good, but care should be taken in selecting a suitable fish species, given the exposure to seasonal sea water inundation and king tides. Fresh water Tilapia is unlikely to work on such sites.**
3. **The request for purchase of motor boat for two sites is difficult to support, as there is no dedicated budget for this expenditure, and hence it would require a major reclassification of budget lines and subsequent approval from the EU.**
4. **The plan to recruit more full-time field assistants and another administrative assistant will need to be approved first by MAL and fully justified, given also the additional staff available for these new tasks.**

2.5. Progress of the project in Vanuatu (by Peter Iesul)

- A. Livestock Diversification: *Increased capacity of interested farmers in selected communities for using improved chicken and pig feeding and management practices*

- Completed the selection, training and setting up of 6 village chicken model farmers for improved village chicken management. Also completed procurement and distribution of farm structures (fencing, drinkers and feeders etc.)
 - Completed the selection, training and setting up feeding trials with 5 broiler farmer and one layer farmer at Siviri and Malafau. Also completed procurement and distribution of farm structures (fencing and feed etc.)
 - Conducted training on sweet potato silage in all the project sites. A trial on banana silage was also conducted using *pipturos argenteus* at Malafau where banana is a staple crop and was successful. However, more work needs to be done in this area.
 - Handing over and signing of contract agreement with VARTC for poultry egg incubator machine, followed by practical training for all technical staff on the operation of the incubator and setting up of poultry farm at VARTC
 - Completed translation of the English version of the sweet potato silage manual into Bislama. Continued dissemination of the technology by other associated projects like the GIZ project and community resilience project
 - Current priority activity is setting up 3 model farmers for goats at Siviri site which involves the transport of breeding goats from Tanna
- B. Crop diversification: *Greater diversity of crops species and varieties maintained by selected farmers in the community (Sweet potato, Yam, manioc, banana, Taro, rice, peanuts)*
- Conducted training on yam mini-setting and nursery management (all project sites) and setting up of mini-setts and large setts trials
 - Completed setting up of cassava participatory trials in all the project sites
 - Completed planned training on the yam mini-setting and nursery management sites
 - Completed setting up of taro participatory trials in Malafau
- C. Staple crop Improvement: *Farmer-preferred drought tolerant sweet potato varieties identified and available to the selected communities*
- Participatory evaluation of 10 varieties of sweet potato at Siviri site under dry conditions is underway

D. Soil water and fertility management

- Organized establishment of temporary rain gauges in collaboration with Meteorology Department for monthly and daily rainfall records at project sites. Most of work was done by Helmut of BOKU University. Furthermore, contract agreement was signed with VMGD.
- Carrying out mapping, soil testing and collection of baseline data from all sites
- Preparing for training on sustainable farming systems techniques (agro forestry & alley cropping) for soil regeneration
- Project implementation in this component is awaiting approval from ADRA which stepped in to replace World Vision – Vu.

E. Constraints and Challenges

- Limited man power of implementing partner institution has hindered implementation. Progress for the appointment of full-time contract field assistants is underway to take lead in site level action and supervision.
- Key staffs of DARD are also engaged in the implementation of five other climate related projects.

Resolution:

- 1. DARD is requested to expedite the recruitment and deployment of the three to four field assistants recommended for the project sites in Vanuatu.**
- 2. The country team is urged to finalise the site plans promptly.**

Agenda 3. Status of project finances

- About 44% of project budget was used up during 58% of the time frame of nearly 3 years (See Table 1).
- There is a clear need to step up the pace of village level project activities by engaging more extension and support staff of partner institutions. MAL has recruited three field assistants a livestock supervisor and a driver. DARD is preparing to recruit three field assistants, and possibly a fourth one for Middlebush. In PNG one each of field assistants may be needed for Tambul, Kopafu and Laloki.
- Project was advised from the Contracting Authority to consider requesting release of contingency budget provision.

Table 1. Summary of project expenditure by year and major budget categories

Categories	Total budget	Year 1 costs	Year 2 costs	Year 3 to Oct	Total	%
Human resources	1,741,674	331,943	305,382	178,974	816,299	47%
Travel	451,005	49,069	106,023	56,489	211,581	47%
Equipment & supplies	798,350	10,682	246,063	62,667	319,412	40%
Local office costs	94,657	12,946	20,537	21,411	54,894	58%
Audit, visibility	65,000	6,482	12,916	15,233	34,631	53%
Workshops, re-granting	107,000	9,718	39,244	21,544	70,506	66%
Total	3,660,011	420,839	820,341	356,318	1,597,498	44%

Agenda 4. Update on the External Project Progress Monitoring mission

The external project monitoring officer who conducted the monitoring mission between 04 and 09 November in Vanuatu and PNG, has had opportunities to:

- meet with representatives of project stakeholders in Vanuatu, selected members of the VU country team,
- visit sample model crop and livestock farmers at Siviri and Malafau in Vanuatu
- meet with four of the project component leaders (Birte, Peter, Dominik and Workneh) in Port Moresby, and
- visit station level project activities at Laloki.

At the end of the mission she gave following comments and recommendations, the full list of which is presented in Annex 5.

The full report of this mission is still being awaited. The tentative overall assessment given of the project progress was as follows:

- Relevance and quality of design - B
- Efficiency of Implementation to date – C
- Effectiveness to date – B or C
- Impact prospects - B
- Potential sustainability - B

Agenda 5. Update on quarterly consultations by the project team

- Project core team from the three countries held quarterly project review meetings:
 - First: 13-14 May 2013 (modus operandi)
 - Second: 13-14 August 2013 (finalise site plans)
 - Third: 19 – 20 November 2013 (implement M&E plan)
- SI and VU country teams were advised to do monthly review meetings, but it is only the Vanuatu team that held its first meeting on this.

Agenda 6. Action plan for Year 4

It was agreed that the project team across the three countries will continue implementing the planned activities as specified in the elaborate site plans. The key points pointed out for each of the major outputs were:

- Output 1: Project coordination: need for a replacement Action Coordinator, as the current coordinator is appointed Deputy Director General of NARI.
- Output 2: Socio-economics (needs assessment and final survey): focus on the progress monitoring work and follow up of the pending decision on how the economic evaluation work from BOKU will be organized.
- Output 3: Soil water and fertility management: firm up pending site level activity for Middlebush and continue with planned training and demonstration activities.
- Output 4: Crop production and utilization: speed up site level planned activities across the three countries taking full advantage of newly recruited field assistants.
- Output 5: Livestock diversification: speed up site level planned activities across the three countries taking full advantage of newly recruited field assistants
- Output 6: Linkages and information sharing: departure of PD3 has affected progress. Team needs to continue with implementation of planned stakeholder consultations in Honiara and Port Vila from early 2014.

Resolution:

- **Request NARI to assign a replacement Action Coordinator. The Committee suggests Dr. Birte Komolong as an appropriate replacement.**
- **Request NARI to strengthen P3**

- **Fast track site level implementation of activities**
- **Request EU for:**
 - **release of contingency budget, and**
 - **budget reallocation across budget lines/categories**

Agenda 7. AOB

With no additional agenda items proposed or tabled for discussion, the meeting checked that there were major cross-cutting issues related to gender, HIV/AIDs or conflict resolution arose during Year 3. The current communication and visibility actions were considered adequate.

After having covered all agenda items, without leaving pending matters, the meeting was adjourned at 4:00pm.

Annex 1: Brief report on progress of planned work under the socio-economics component

Component/ Expected Project Result:	Socio-economics/ Suitable target smallholder communities in PNG, SI & Vu identified, needs-assessed, and participating in the research and development process
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1. Progress towards achievement of the milestones set for the period

The milestone for this period is Activity 3 on the logframe – Annual community feedback meetings held in pilot sites in PNG, Si and Vu. Feedback meetings were held in 3 sites in PNG along with the livestock component and 1 site in PNG along with food crops (food processing).

2. Progress towards the overall Component objectives and Results

Progress from Activity 3 towards component objectives by end of 2013 is 9% achievement (3 out of total of 32 such activities to be implemented across components, sites and countries).

3. Explanation as to significant variances from timelines and implementation plans

Activity 3 is planned to be implemented at the same time as when other components are doing their progress/feedback evaluations. There had been delays in implementation of Activity 3 because most feedback evaluations by components will be happening in 2014 once they have achieved first cycle of project trials in the communities and during which, farmers will be giving their feedback on the trainings received and knowledge utilized in project activities. In addition, socioeconomics component was also short on manpower in 2013.

4. Modifications in implementation plans at sites and overall plans for the component, impending problems and recommended solutions

Initially, our plan was to carry out this activity towards the end of the year; however we have decided to do this concurrently with the other components during their feedback evaluations to maximize on the information that will be generated during such meetings while in addition, we will collect other information that are necessary for the assessments. This will happen throughout the year, as and when components are ready to do their feedback evaluations. We are planning to recruit 2 graduate economists in 2014 to assist us with these activities.

5. Lessons learnt or any other relevant observations as part of implementation

Combining our Activity 3 with feedback evaluations from components appears to be very useful.

Annex 2: Brief report on progress of planned work under the soil water and fertility management component

Component/ Expected Project Result:	Innovative water management & soil improvement strategies/systems to support agriculture under precipitation excess or deficit conditions available to smallholder communities in PNG, SI and Vu
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Progress towards achievement of the milestones set for the period

In general planned activities at selected sites in PNG are implemented within the timeframe according to the site activity plans. Some delays that were encountered were caused by delayed delivery of equipment mainly due to problems with customs, lack of capacity and tribal unrest in the vicinity of the NARI-HRC Aiyura station. In order to tackle difficulties with manpower, an additional technical assistant was hired, who will commence work by early 2014. Tribal fights are still a problem and will affect work throughout the next months until the problems are resolved. Mainly getting a vehicle and a driver for longer periods is a problem. Attempts have been made to make use of drivers of other NARI centers.

Kopfao:

Milestones for planned outputs for Kopafao were achieved within the timeframe. For **output 1** *“Community has an improved capacity to manage available water sources for domestic and agricultural uses”* an irrigation survey (M4) was conducted to establish baseline on water use for agricultural production. Model farmers have been identified and suitable irrigation technologies identified (M5). Work will start as planned before end of dry season next year. Respective material and equipment will be purchased in Q1 2014. Work will mainly include comparative analysis of low tech micro irrigation schemes. A graduate student of BOKU has been identified to implement research work. He will commence work late May or early June 2014. A detailed planning and design (M6) of the system will be done in close collaboration with the selected model farmers according to irrigated crops, locality and available water source. Pilot testing of the irrigation schemes (M6) will be done by the BOKU student under close supervision of the soil and water component leader.

100% of the planned activities for output 2 *“Increased capacity by participating farmers to use improved soil management practices addressing constraints of soil erosion, water deficit and fertility”*, which includes activities of M2 and M3. After identification of a suitable technology (M1) to tackle problems of soil erosion, soil water deficit and soil fertility loss, using vetiver hedge rows, a test trial plot was set-up at NARI Aiyura. With this successful trial the suitability and use of catch pits for erosion monitoring in combination with vertical drains (according to common cropping practice) along the slope line were pre-tested before implementation at site. The design was slightly modified and demonstration plots were set up at a selected location at the study site. Prior to the establishment of the demo-plot, training was held to introduce the new technologies to the community. Linkages between soil erosion, soil fertility loss and problems with soil water deficit affecting crop development in the early stages were explained. The farmers were invited to participate in the set-up of the demo-plot, but because of the hard and labor intensive work, not many were interested. To overcome this problem and to get more farmers involved additional trainings are planned for next year. M4 (monitoring and data collection) has been started and will continue throughout 2014 and 2015. By the time of harvest in Q2 2014 a training workshop

will be held to finalize the first cropping cycle and share results with the community. Based on lessons learnt a second cropping cycle will be started by the end of dry season of 2014.

Derin:

M1 and **M3** for output “*Capacity for improved management and use of available water sources for domestic use increased in Derin Community*” were successfully implemented within the planned timeframe. As an associated partner World Vision Madang was entrusted to facilitate the three day planning and awareness workshop to identify a suitable water supply system (**M1**) and to improved knowledge and practice of good hygiene and water use (**M2**). This workshop was held using adapted versions of CLTS (Community Led Total Sanitation) and PHAST (Participatory, Hygiene and Sanitary Transformation) methodologies and concepts. Especially for **M2** it was decided that for sustainability reasons follow-up and refresher trainings will be held. Additionally potential impact will be monitored and assessed on a frequent basis.

Major events of this planning and awareness session were:

- Transect walk, encircled the meeting area to identify open defecation (CLTS).
- Drawing of a village map and located their households with and without toilets (CLTS).
- Demonstration of flies as a medium of feces (germs) transmission and explain other modes of transmission (CLTS).
- Conduct group discussions and involve farmers to realize the importance of hygiene, proper water management and health themselves (CLTS).
- Tippy Tap demonstrated as a hand washing technique as well as other technology like BSF and Solar Disinfection (WADI device).
- Identified possible sites for the establishment of roofing iron water harvesting and hand dug well. Allocated task to the community as well as ours for implementation (PHAST).
- Water committee established (PHAST).
- System for baseline data collection and impact monitoring established

In total 55 community members participated during the 3 days workshop. About 15% were female. Unfortunately most women were just in an observing position, which is critical due to the fact that in most communities women are responsible for water and hygiene matters. Future refresher trainings especially will have to cater for this problem and mainly focus on female participation.

Suitable sites were identified by the community members to establish 5 roof water harvesting systems and 1 hand dug well. A potential site for the well was already identified during exploration drilling exercises early in 2013. In accordance with the locations of the water harvesting schemes and the well, members of a water committee were identified by the participants.

Agreement was reached that iron roofs, cement, gutter and tanks will be provided by the project and the other inputs for building and structures for the RWH (Rain Water Harvesting) schemes will be sourced by the community. Labor input will be provided by the community to install the hand dug well.

Model farmers in accordance to the selected sites for water supply will be identified and further training conducted with respect to proper water management, use of BSF and solar disinfection.

Murukanam

The planned activities for output 1 “*Farmers have knowledge and skills on most pertinent soil fertility constraints and their causes to address limitations on crop production*” could not be achieved due to ongoing tribal unrest in the vicinity of NARI Aiyura station, mainly with respect to availability of drivers. Delayed work, which includes activities for **M1** (Soil fertility status assessed and constraints related to crop production identified) will be conducted in Q1 2014. Due to the fact that Murukanam was selected as a dry low land site it was also discussed to include roof water harvesting system in combination with food garden utilizing excess grey water from the tanks. Soil water deficit, water supply and access to safe water are undoubtedly of major concern in this area. No other option of soil water conservation is available to address the issue of soil water deficit during dry spells for food crop production, because of its labor intensive nature. Additionally the farmers’ highest priority is given to cultivation of cocoa the major cash crop in this region, which leaves them with very little time to look after their food crops which makes them in a way vulnerably to risks of climate change. This output will be planned and incorporated in the site plans as necessary.

Hisiu/Yule Island

No activities were planned for respective reporting period. Work for **M1** of output 1 and 2 respectively are planned for Q1 2014.

Implementation of activities in **Solomon Islands** and **Vanuatu** is slower than expected. Main reason is lack of appropriate technical field staff, which needs to be recruited by respective partners in both countries. Necessary arrangements have been made to recruit technical field staff for each study site, which will help to roll-out planned activities within the planned timeframe.

Solomon Islands:

Trial and demonstration plot designs for all three sites - Buma, Hund&Kena and Aruligho - are currently being discussed and finalized and implementation will start early 2014. Specialized equipment to monitor soil salinity status and soil water content at Buma has been ordered and delivery is expected end of 2013 or early 2014.

Vanuatu:

During the last visit to Vanuatu contact was established to a new potential partner ADRA, who can assist DARD to implement water related project activities at the Tanna site, Middle Bush. The signals sent by ADRA country director were very positive; however, a final decision on the collaboration is still due. This mainly depends on the funding of another ADRA project financed by New Zealand Aid, which would be implemented on Tanna as well. In his last e-mail ADRA's country director mentioned that NZaid unofficially gave green light for the Tanna project, which would also mean that the planned collaboration can be developed further.

Progress towards the overall Component objectives and Results

Activity 2 “*Assessment of current and future impacts of climate change with respect to excess, deficit soil water content and salinity in PNG, SI and Vu and to identify suitable technologies to mitigate adverse impacts*”

CC scenarios for excess, deficit soil water content are currently being developed (M1). Meteorological data from various sources and where ever available, for the study sites or locations in close vicinity of the sites, have been collected. Scenarios for sea water level rise are yet to be developed. However a study will be undertaken to determine potential future effects of SLR on land resources at Buma site in Solomon Islands.

Specialized equipment to **monitor soil salinity status (M2)** and soil water content at Buma has been ordered and delivery is expected end of 2013 or early 2014. Potential impacts on crops and management solutions will be assessed and recommended as a result of this study.

A trial to determine **soil water dynamics in SP mound system and effects of excess soil moisture (M2)** will be set-up on-station at NARI-HRC Aiyura to monitor water balance in SP mound system and assess potential effects of excess soil water scenarios on SP production. Specialized equipment (soil moisture probes) were ordered and should be delivered end of 2013 or early 2014. After calibration of the soil water sensors, the trial will be set-up according to an already finalized trial design. An automatic rain gauge will be used to monitor rainfall events on a three hourly bases to capture all extreme rainfall events.

In a study determining the **impact of CC on soil profile water content** in selected study sites (M2) the effect of CC scenarios of soil water deficit and excess moisture will be assessed. Typical weather scenarios for dry and wet conditions are currently being developed which will be used as input parameters for a numerical soil water model (Hydrus 2D). Specific soil physical properties (soil water retention characteristics) will be determined using a laboratory apparatus (Hyprop). The model design and concept was developed during this reporting period.

(M3) One AWS (automatic weather station), six automatic rain gauges and two manual rain gauges were ordered and delivered. Two automatic rain gauges each were ordered for Vanuatu and Solomon Islands and will be set-up in Q1 2014 at Ringi station and Buma site in SI and Siviri and Malafau sites in Vanuatu. The AWS will be set-up at Kopafu (PNG), a dry highland site. One automatic rain gauge will be utilized for an on-station trial measuring the soil water dynamics in SP mound systems (see below). The second automatic rain gauge will be set-up at Derin site. Most probably more rain gauges will be ordered to meet the need to continuously monitor rainfall at, at least two more PNG sites, namely Murukanam and Yule Island.

Activity 3 “*Develop and assess water harvesting methods, ground water availability & dynamics, irrigation techniques and management strategies at pilot sites in target communities in drought vulnerable parts of PNG, SI & Vu*”

Report on all on going activities are given under point 1 “*Progress towards achievement of the milestones set for the period*” for Kopafu and Derin sites. All planned activities are well on track.

Activity 4 “Develop and assess soil water and soil management technologies under excess, deficit soil water and saline conditions at benchmark sites in target communities of PNG, SI & Vu”

Report on all on-going activities are given under point 1 “*Progress towards achievement of the milestones set for the period*” for Kopafu and Buma sites. All planned activities are well on track.

6. Explanation as to significant variances from timelines and implementation plans

Preliminary assessment at Murukanam site had to be postponed due to the before mentioned ongoing tribal unrest at NARI-HRC Aiyura.

Activities and implementation of planned trials and demonstration at the SI and Vu sites are slightly delayed because of capacity problem within the partner organizations.

7. Modifications in implementation plans at sites and overall plans for the component, impending problems and recommended solutions

n/a

8. Lessons learnt or any other relevant observations as part of implementation

Nil.

Annex 3: Brief report on progress of planned work under the Crop improvement and diversification component

Component/ Expected Project Result 4:	Diversification options for crop production and utilization available to smallholder communities in PNG, SI & Vu in areas affected by moisture stress, excess precipitation, or saline soil conditions
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Progress towards achievement of the milestones set for the period

A1. Source alternative sweet potato varieties, crops and crop varieties from national and international collections which are tolerant to precipitation excesses or deficits or saline soil conditions

M1. Collection of SP varieties and accessions sourced from different national and international collections assembled at Bubia.

Task completed with 102 SP accessions assembled from within PNG and 55 SP introduced from CePaCT and are in PNG Tissue Culture laboratory.

M2. Other crops and crop varieties from national and international collections sourced and assembled at Bubia.

Task completed. Taro (*Colocasia esculenta*) 42 accessions (37 from EU-Taro Project, 5 Taro accessions via CePaCT), 3 *Xanthosoma*, 6 international and 10 national cassava accessions and 24 yam (21 *Dioscorea alata*, 3 *D. Rotunda*) are being maintained in PNG tissue culture lab as well as in SI and VU, as detailed out in the following Table.

Crop	Source of germplasm accession		Remarks
	International	National	
Yam	20 (<i>D. alata</i> in TC in PNG)	1 (<i>D. rotundata</i>) variety each for PNG & SI and 2 (<i>D. rotundata</i>) and 1 (<i>D.alata</i>) for Vu.	<i>D. rotundata</i> currently on-farm demonstration in all 3 countries & <i>D. alata</i> in Vu.
Cassava	6 (in TC in PNG)	10 (PNG), 15 (Vu) & 8 (SI)	currently on-farm demonstration for Vu & SI
Rice		3 (NARI released varieties for PNG)	currently on-farm demonstration for one site in PNG (Hisiu)
Xanthosoma	3 (in TC in PNG)		
Taro (<i>colocasia esculenta</i>)	5 (in TC in PNG)	37 for PNG (EU- Taro project) & 10 for Vu	EU & Vu taros currently on-farm demonstration
Maize		3 for PNG	2 rice varieties used on farm demonstrations

Wheat		6 for PNG	
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A2. Screening of indigenous germplasm, locally bred and imported varieties of sweet potato and other crops/crop varieties under simulated conditions (in vivo and in vitro) to assess tolerance to drought, moisture excess and salinity condition , and to identify promising varieties

M1. Tissue culture lab at Bubia operational.

Task completed laboratory operational at Bubia.

M2 Tissue culture lab at SI rehabilitated

Two rounds of rehabilitation works completed in 2012, but disagreements on the type of shelf to set up in the lab has held up completion of this work; lab not yet operational by time of reporting.

M3. All SP accessions initiated in TC.

80% of the 102 SP accessions established in Tissue culture laboratory at Bubia.

M4. Protocols for in vitro screening of SP for drought and salinity standardized.

Task completed adopted and is under modification at 70% completion.

M5. Best-bet SP accessions for tolerance to drought identified for in vivo testing.

Task not completed; some test runs made and progress is only 20% of target.

M6. Best-bet SP accessions for tolerance to salinity identified for in vivo testing

Task not completed; some test runs made and progress is only 20% of target.

M7. Phenology grouping of PNG SP accessions established

Field screening is completed and grouping to be finalized at 90% progress.

M12. Rainout shelter constructed at Bubia.

Awaiting final drawing in second draft for costings; only 30% progress on output; the construction phase will also take long to complete.

A3. Validation and piloting of sweet potato adaptability to different stresses at pilot sites and introduction of other crops and crop varieties in target communities in PNG, SI and Vu

M1. Implementation of pilot site activities

Work on crop activities have commenced at all sites.

A4. Piloting of selected improved cultivation practices for priority staple crops in target communities in PNG, SI, and Vu according to expressed needs

M1. Implementation of pilot site activities

Work commences 2015.

A5. Piloting of processing options of sweetpotato and cassava for food, feed, storage

M1. Implementation of pilot site activities

Work commences 2015.

A6. Assessment of existing mechanisms for provision of quality seed to farming communities in PNG, SI, Vu and recommendations for improvement

M1. Implementation of pilot site activities

Work commences 2015.

9. Progress towards the overall Component objectives and Results

Progress has been slow initially and is due to lack of clarity of activities to be implemented at the various sites. The PNG sites not only selected for the climate change stresses but also at altitude difference. Altitudes influence the soil temperature. Set of crop species and cultivars adapted to the low altitude site may not be adapted to the high altitude sites.

Staffs engaged by NARI to implement crop activities at the different sites are not homogeneously competent and has a negative effect on the rolling out of activities at the sites.

10. Explanation as to significant variances from timelines and implementation plans.

Major variation on the implementation time line is due mainly to lack of clarity of the specific activities for each site and limited manpower available to implement site level activities.

11. Modifications in implementation plans at sites and overall plans for the component, impending problems and recommended solutions.

Two insertions were made to Activity 2 to bring total mile stone to 12. This is to allow for tissue culture work on bulking up of crop species introduced from CePaCT and the on-station evaluation of the sweet potato from the same.

12. Lessons learnt or any other relevant observations as part of implementation

Most staple crops at the project sites, in particular sweet potato, cassava and yam, are vegetatively propagated. Improved planting materials of most of these crops are not readily available to the farmers.

No root crop including sweetpotato and *Dioscorea rotundata* currently recommended for high tolerance to moisture stress condition can produce good yield under adverse soil water deficit condition.

There are limited crop species used for food in the high altitudes in the Western Pacific especially PNG. A systematic approach of introduction of appropriate cultivars from established international institutions like IRRI for cold rice varieties and CIMMYT for maize, etc, is essential for adaptation screening at the Tambul site.

Annex 4: Brief report on progress of planned work under the livestock diversification component

Component/ Expected Project Result:	Livestock and fish production diversification options resilient precipitation deficits and/or deficits or soil salinity, and reliant on cost-effective locally produced feed/forages available to smallholder communities in PNG, SI and Vu
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1. Progress towards achievement of the milestones set for the period

Activity 1: Assessing the potential for improving farm productivity through diversifying livestock assets and improved cyclical use of crop and livestock inputs in situations where excess rainfall, moisture deficit or soil salinity conditions are problematic

M1. Preferred options for diversification and integrated use of resources are identified: this activity is completed early this year in all project sites where diversification through integration was identified as a preferred intervention. In particular, Murukanam, Tambul and Hisiu in PNG have gone ahead with specific demonstration trials.

M2. Appropriate demonstration trials implemented by nominated model farmers. Completed during this last quarter. In all project sites where livestock diversification was sought after, demonstration trials have been initiated; three sites in PNG (Murukanam, Derin and Kopafo) and two sites in SI (Aruligho and Buma) and two sites in VU (Siviri and Malafau) have completed first rounds of demonstration trials with model farmers and have identified the second lot of model farmers during this last quarter.

M3. Participatory technology assessment workshops held in all sites. Only three (Murukanam, Derin, Kopafo) of the five planned workshops in PNG were completed by the time of this reporting, and one more (Tambul) is scheduled for completion before the year end. Two of the three sites in VU (Siviri and Malafau) are preparing for the workshop at the year end. The rest of the sites will follow early in the next quarter.

Activity 2: Sourcing and identifying forages tolerant of excess moisture and saline soil conditions, e.g. grasses, legumes and multipurpose shrubs such as Mulberry

M1. The need and type of forages identified. Almost completed, only documentation remains. All the identified forage species are local, without the urgent need to introduce exotic species from overseas. Apart from absence of any urgent need for introducing new forage species, the limited institutional capacity (manpower, research

facilities) to maintain and propagate introduced exotic species does not encourage the imports.

M2. Implementation of pilot site forage development and assessment activities completed. Scheduled for next year

Activity 3: Pilot test diversified livestock feeding systems and husbandry practices in smallholder communities in target communities in PNG, SI and Vu

M1. Implementation of pilot site improved feeding and management demonstration activities completed. An on-going activity. Demonstration livestock feeding trials have been underway in three of the five sites in PNG that chose these activities. In SI, two of the three sites have completed one round of feeding trials. In Vu, two of the three sites have completed the first round of demonstration trials. This will continue next year with a different set of nominated model farmers.

M2. Implementation of preferred livestock integration activities completed. An on-going activity. Four of the five sites in PNG have started implementation. In SI one site, in VU, two sites have started related crop-livestock activities.

M3. Participatory technology assessment workshops held in all sites. An on-going activity; only three have been completed in PNG by the time of this reporting; one more in PNG and two in VU are scheduled to take place before the year end. Other sites will follow early next year.

Activity 4: Assessing existing mechanisms for supplying breeding stock in PNG, SI, and Vu and demonstrating institutional or community-based breeding facilities

M1. Selected breeding stock of livestock supplied to model farmers and established. An on-going activity. Preferred breeding stock of chicken, ducks, goats and Tilapia fish fingerlings have been distributed at three sites in PNG (Murukanm, Tambul, Hisiu). In SI, village chickens were distributed to one site from the KGA incubation facility. In VU, village chicken stocks are ready for distribution. More will follow next year in the three countries. The planned import of exotic foundation breeding stock of chicken, ducks, goats and pigs are being reconsidered in light of the current institutional capacities to manage the import and maintenance of imported breeding stock. Bio-security and cost considerations also make the available local options more appropriate and cost and time effective.

M2. Desktop review of breeding stock supply systems in PNG, SI, Vu. Scheduled for 2015.

M3. Stakeholder workshop on breeding stock supply systems held in PNG. Scheduled for 2015.

M4. Stakeholder workshop on breeding stock supply systems held in SI. Scheduled for 2015.

M5. Stakeholder workshop on breeding stock supply systems held in Vu. Scheduled for 2015.

M6. Policy brief submitted to relevant Government bodies in PNG, SI, Vu. Scheduled for 2015.

2. Progress towards the overall Component objectives and Results.

Most of the planned specific objectives in all sites in PNG are on track, but those in VU and SI are progressing slower than planned due mainly to limited manpower of implementing partner institutions. After consultation with respective partner institutions, full-time contract field assistants have been recruited to take lead in site level actions and supervision. In PNG, the involvement of local DAL extension staff is very limited and more needs to be done to have them take more active role in implementation and supervision of planned activities.

3. Explanation as to significant variances from timelines and implementation plans
No significant variances from set timelines to date. But the number of livestock directly involved in planned activities is less than expected due to the limited field level staff of partner and associate institutions.

4. Modifications in implementation plans at sites and overall plans for the component, impending problems and recommended solutions
The plan to import superior adapted grass and legume seeds into the project countries was found to be less appropriate than the range of local feed resources that communities are using and could test. In all the project sites, the more pressing problem in feed supply is not the limited range of forage species that exist, but the knowledge and skills to effectively utilize local feed resources from crop fields, bush lands and trees. Work has now focused more on promoting local feeding options.

The planned import of foundation breeding stock of chicken, ducks, goats and pigs is being reconsidered for three main reasons. a) More appropriate and much cheaper local options are available; b) expensive and demanding import quarantine requirements cannot be justified by expected immediate benefits when all the countries have limited institutional capacity to maintain and reproduce imported breeding stock; c) confirmed outbreaks of contagious avian diseases in Australia pose

another technical challenge that require extensive expert input and financial resources to manage at the level of the three project countries.

5. Lessons learnt or any other relevant observations as part of implementation
Livestock are ubiquitous in all the project sites, but are mostly kept in very extensive and low input ways at low level of production. Improving this scenario can start from basic livestock rearing techniques aimed at 1) reducing the current high rates of early age mortality of breeding stock, 2) reducing losses of stock and products to predators through proper shelter and fencing, and 3) providing some supplementary feeding to lift early growth rates.

The need to build institutional capacity to deliver local extension and research services is becoming more important not just for addressing current issues in food security but also in the future of sustainable agriculture.

Annex 5: Brief report on External Project Progress Monitoring Mission

(Ms. Melanie Inniss; 04-08 November 2013)

The external project monitoring officer who conducted the monitoring mission between 04 and 09 November in Vanuatu and PNG, has had opportunities to:

- meet with representatives of project stakeholders in Vanuatu, selected members of the VU country team,
- visit sample model crop and livestock farmers at Siviri and Malafau in Vanuatu
- meet with four of the project component leaders (Birte, Peter, Dominik and Workneh) in Port Moresby, and
- visit station level project activities at Laloki.

At the end of the mission she gave following comments and recommendations:

- Finalise and formalize the site plans for project sites in SI and VU
- Site plans in SI and VU need to be fully understood and appreciated by country team members and field level staff.
- Hold more regular monthly review meetings of the project teams in SI and VU to track progress of work and provide updated for project reporting.
- Consistently track project outputs and activities through quarterly reports
- Document and archive all approved research protocols, and make sure all field staff receive and use them

- Ensure consistency of data collection across villages, sites, countries, to emphasise research aspects of the project
- Data collection formats need to specific instruction at site level on: What data is to be collected? How frequently? By whom? Data flow?
- There is need for close follow up of component activities by staff of Partner institutions:
 - SI: Crops, Livestock, Soil water – who exactly?
 - VU: Livestock, Crops, Soil Water – who exactly?
- Status of rehabilitation of the MAL Tissue Culture Lab is still unclear.
- Include hatchery activities at Kastom Gaden and VARTC in the quarterly reports
- Promote scientific communication of project progress in the form of publications
- Stickers on fixed assets (will prepare more stickers)
- Sign boards at VU project sites are done; the remaining ones need to be finalized promptly.
- Project office has organized 500 new project T-Shirts as part of the project visibility. Most of these are to be distributed to the model farmers at project sites.
- Visibility of project through publicity articles (Newsletters, Newspapers, website news) has been good and should continue.
- Only about 44% of project budget was used up during 58% of the time frame (nearly 3 years); this is seen as under-spending by the project. No-cost extension of the project may not be straightforward, and hence better to consider speeding up project implementation. Even the projected project expenditure to end of year 3 shows under-expenditure (Table 1).
- Given that scarcity of support staff has been the main reason cited for slower than expected project implementation, consider stepping up the pace of village level project activity by engaging more extension and support staff of partner institutions as was done in SI. In particular, expedite the suggested recruitment of three to four field assistants in VU. Similarly, more field assistants may be needed for three sites in PNG (Tambul, Laloki and Kopafu).

Table 1: Summary of annual project expenditure by major cost categories (Euro)

Categories	Total budget	Year 1 costs	Year 2 costs	Year 3 to Oct	Total	%
Human resources	1,741,674	331,943	305,382	178,974	816,299	47%
Travel	451,005	49,069	106,023	56,489	211,581	47%
Equipment & supplies	798,350	10,682	246,063	62,667	319,412	40%
Local office costs	94,657	12,946	20,537	21,411	54,894	58%
Audit, visibility	65,000	6,482	12,916	15,233	34,631	53%
Workshops, re-granting	107,000	9,718	39,244	21,544	70,506	66%
Total	3,660,011	420,839	820,341	356,318	1,597,498	44%

- Documentation is essential. Consider documenting unplanned positive as well as negative lessons learnt or effects observed, be it at institution or community level; for example:
 - The experience in developing a comprehensive M&E Plan for the project
 - Local development opportunities that may be emerging
 - Unrealistic expectations on staff strength of partner institutions
 - Requirements for more travel for Component Leaders to SI and VU that affect their other duties in PNG
 - The strong focus on food security in this project is in line with the AR4D paradigm shift
- Targeting of project beneficiaries can further be improved, for instance by:
 - Given that the youth are one of the vulnerable groups of rural communities across the three countries, consider targeting them in particular to be engaged in the project
 - Consistently disaggregate data by gender, for instance trainees, model farmers.
 - Continuously check whether forest/bush land is being cleared for new cropping due to the project
- More data may be needed about beneficiaries:
 - How many households are directly involved?
 - How much service was provided? Training; Distribution of planting/breeding materials

- Capture indirect benefits to communities and institutions
- Capacity building at partner institutions
- BOKU:
 - Final decision is still pending on the economic evaluation assignment
 - Involvement of BOKU students on activities at project sites is welcome, especially to strengthen the hitherto weak activities on planned water and sanitation works at: Derin and Middlebush. ADRA have not yet made a final decision on their involvement.
- Overall assessment:
 - Relevance and quality of design - B
 - Efficiency of Implementation to date – C
 - Effectiveness to date – B or C
 - Impact prospects - B
 - Potential sustainability - B
