TIRTA

Tertiary Irrigation Technical Assistance

Progress Report, Implementation Plan
&
4 Year Strategy

Tertiary Irrigation Technical Assistance

March 2016 (Public version)

Contents

Text boxes

Figures

Executive Summary

The program: The Tertiary Irrigation Technical Assistance Program (TIRTA) is an Australian Department of Foreign Affairs (DFAT) funded initiative under the Australia Indonesia Partnership for Development (AIP-Rural) umbrella that commenced in July 2015. TIRTA's overarching goal is aligned with the other AIP-Rural initiatives; to increase farm incomes for smallholder farmers in eastern Indonesia. TIRTA specifically aims to improve the incomes of 10,000 small-holder farmers, by at least 60% by 2018.

The program seeks to achieve this ambitious goal by applying a market systems approach: namely by addressing the underlying constraints to private-sector expansion of provision tertiary irrigation services. It is estimated this can be achieved if 3,500 ha of non-irrigated land is brought under irrigation. TIRTA plans to operate in three provinces: East Java, West Nusa Tenggara and East Nusa Tenggara, with an initial consolidated focus on pump-lift irrigation in three districts of the Lower Bengawan Solo in East Java Province. The Bengawan Solo is an inter-provincial river. The central government's river basin organisation, 'Balai Besar Wilayah Sungai Bengawan Solo', manages the river basin's water resources.

This report presents TIRTA team's first 'Progress Report and Implementation Plan' (PRIP) and its 'Four-Year Strategic Plan'. The integration of progress reporting, strategy formulation, and implementation planning into one document streamlines the processes for and enhances the coherence between reporting.

Policy context: Farming communities in Indonesia have traditionally regarded irrigation service provision as government's responsibility and water as a free resource. National, provincial and district level irrigation policy has historically been shaped by these interlinked expectations. The team's first engagements with government and surveying the realities on the ground, TIRTA has witnessed continuing signs of government's interest in reducing its role in irrigation and promote increased involvement of private sector actors. This provides a strong basis for TIRTA's strategy for program implementation outlined below.

The PCC: At the national level, coordination and communication for TIRTA is managed through a Program Coordinating Committee (PCC), co-chaired by DFAT and the Directorate of Irrigation and Swamps (Ministry of Public Works). On the 1st December 2015, TIRTA's first PCC meeting was held at the Ministry of Public Works in Jakarta. The meeting was positive and reinforced TIRTA's assessment of GOIs interest in a private sector policy agenda for tertiary irrigation.

The SRP: The Strategic Review Panel (SRP) reviewed TIRTA plans for the first 6 months. They recognised that TIRTA had mobilised well and had a clear initial plan for site identification, survey design and responding to safeguard issues including assessing environmental impact. TIRTA's initiative for collaboration with PRISMA around operations and government engagement represented a 'good example of whole-of-portfolio delivery resulting in more efficient and effective delivery.' TIRTA was advised to focus on establishing itself in East Java. The next SRP meeting will be held in March 2016.

Capacity building: To strengthen its capacity for its core task of portfolio management, TIRTA engaged Promark for providing introductory and on-the-job training in the M4P approach, market analysis, intervention design, and MRM. This will be to be followed in early 2016, with comprehensive workshops on intervention selection; intervention design; and deal-making. The team's capacity for gender analysis and mainstreaming will receive extra attention. The Team leader attended the DCED course in Bangkok, prior to his mobilisation. The MRM Manager will attend the course in March 2016. A DCED Consultant will be engaged to assist the team with ensuring that the MRM system meets DCED standards.

The TIRTA team will continue combining strategic training workshops with 'on the job' training in the field. The more formal 'teaching workshops' will be phased out, and a more fluid capacity building and mentoring style will be phased in responding to the team's needs at crucial junctures in the work process. As the programme evolves from design to full implementation, mentoring support will guide the team's senior management through the process of practical facilitation and making the first deals.

Survey and study: The team undertook in September-December a survey to understand the existing market of pump-lift irrigation services. The survey registered 279 pump-lift irrigation schemes in the operation area, jointly serving 22,000 ha of paddy fields. The team were struck by the predominance of existing private

sector investment in schemes and the appetite for future investment by entrepreneurs. Services are provided by entrepreneur/investors and by community organisations, such as HIPPA, BUMDes and Kelompok Tani. Entrepreneurs are at the forefront of the gradual expansion of pump-lift services along the river, with community organisations often taking over management from entrepreneurs over time. The survey work led to the development of a network of initial contacts between the team and potential program participants.

The study identified 66 villages with a total of 6,600 ha expansion potential expansion, most of which located in Bojonegoro District. Primary constraints to expansion are (i) the low efficiencies in pumping and in conveying and distributing water; (ii) the high business risk for service providers; (iii) weak business management and difficult access to financing; (iv) complexity of expanding service across a desa border; and (v) physical obstacles, such as roads, railways, river/canals, and residential areas. By October/November 2015, the team had identified nine potential expansion blocks as attractive opening intervention candidates, with potential expansion area of 2,100 ha.

Composing the opening port-folio: The opening interventions portfolio will be diversified in terms of size of the envisaged irrigation area expansion, management arrangements, and crops to be produced, to enable the team to gain experience in dealing with a wide range of challenges and a better insight in which types of expansion blocks to prioritise and which to avoid in future. This will enable identification of common constraints that can be addressed with second generation scale-up and crowding-in interventions.

For the first year (2016-2017), the team will select a number of schemes as focus areas and develop a specific package of interventions for each block. Partners will be engaged for developing and implementing intervention activities across the selected schemes, such as introductory trainings, and follow these up in each scheme with more tailored activities addressing the specific local needs. The following year they could be implemented more widely throughout the Lower Bengawan Solo area in order to improve the market more generally and ensure future sustainability and scaling up.

A range of cross-cutting interventions will seek to address (i) the high level of risk for investors; government's perception of entrepreneur/investor as service providers; expansion of services across desa borders; water allocation along the Bengawan Solo; and local government capacity for supporting the pump-lift irrigation market. Possibilities for widening the TIRTA agenda Introduction of private sector involvement in management of conventional irrigation schemes and Potential for interventions elsewhere in East Java, such as in the Brantas and Pekalen-Sampean basins.

Whether an intervention design is ready for implementation will be decided by the Team Leader, after presentation by and consultation with the Deputy TL, the MRM Manager, and the Finance and Operation Manager. If warranted, additional consultations and checks will be made with the AIP-Rural Secretariat and PRISMA portfolio managers. The team will verify with local government has no objections, even endorses, the intervention plans (target date: March 2016).

Cooperation with other AIP-Rural Programs: The team sees scope/need for cooperation with PRISMA with regard to crop technologies and markets for non-paddy crops; with ARISA for reducing pump-lift cost, improve water distribution efficiency, and reduce crop irrigation water demand; and with SAFIRA for development of financial products directed to financing investment in pump-lift irrigation scheme establishment or expansion and the seasonal operation cost.

Monitoring and Results Measurement: The MRM System will inform the periodical reviews conducted throughout the programme life-time and need to meet the DCED standards in order for the reports it will produce to be recognised as credible. A preliminary draft MRM manual was prepared as early as in August 2015. The use of results chains in designing interventions was explained to the team and a first generic TIRTA intervention results chain was jointly prepared, following the DCED Standard. In December, the MRM team was strengthened with an MRM Coordinator. The team will have the MRM system well-established by April 2016. An STA DCED consultant will work with the team on the development of the system. The first activities will develop the baseline and this will be followed by the preparation of the Intervention Steering Documents, reviewing/refining the results chains of the interventions planned for implementation and the indicators to be monitored. The paddy harvest is expected to take place in August and that will be the time to assess the results achieved thus far. The assessments will be conducted in-house, utilising the team's

survey assistants and, if deemed necessary, additional temporarily engaged and locally recruited enumerators. The team will arrange for the DCED system 'in-place' audit to be carried out in early September.

A number of special in-depth studies are envisaged, such as on program impact on the landless and poorest, and on women and woman-headed farming households, considering opportunity costs and trade-offs. A young professional will assist with designing these studies and the studies will be contracted out to individual STA.

Gender and Social Inclusion (GESI): A GESI study undertaken in March 2015 by Gillian Brown and colleagues forms the basis for TIRTA's approach to addressing GESI issues. The team intends to recruit specialist support from a university or research centre located as near as possible to the operation area. The specialist will provide the basic training needed; formulate a concept GESI strategy; review the intervention designs and recommend modifications; and take part in monitoring surveys and provide comments. The gender strategy will be continuously updated as the understanding of gender dynamics evolves. With its GESI strategy in place, the team will systematically review all intervention designs through a gender and social inclusion lens. This will involve ensuring that results chains account for effects and impact on women and socially excluded groups and that the MRM system is in place in a way that will be able to record this disaggregated information.

Environment: Among the environmental concerns relating to the Bengawan Solo, the most relevant are land degradation in the upstream watershed, flooding (which destroys pump stations and the crop, jeopardizing payments to service providers); water pollution from industry and agriculture (textiles, food processing & agrochemicals) and water diversions in the dry season.

An environmental protection strategy will be developed to guide the program approach. An overall environmental impact / risk assessment of the program will provide the basis for the strategy formulation. DFAT Canberra provides assistance via its environmental help desk with developing a Terms of Reference for an Environmental Impact Assessment (EIA) and with quality assurance during implementation. The EIA is due to commence by the end of May.

Communications: Key to positive engagement with stakeholders will be timely and effective delivery of tailored communications in the form of workshops, meetings, or documents. This has already commenced with proper introductions and presentations to government at several levels and adherence to periodical updates on activities. This will be expanded to the District level through the development of a TIRTA stakeholder communications strategy, which will include workshops and visits to demonstration units with relevant government representatives, entrepreneurs, and community organisations, and continually updated brochures, hand-outs, and videos. In early 2016, the AIP-Rural website will be launched, a platform which the team will hope to regular contribute new updates for.

TIRTA will ensure that DFAT is fully informed of key developments and risks, both through the secretariat and directly. The monthly updates will continue. Recognising DFAT's appetite for supporting technological innovation, additional attention will be taken to ensure DFAT is informed of any innovations in this sphere.

Stakeholder Relationship Management - GOI & Sub-National Agencies: Establishment of solid relations with GoI agencies with mandates for agriculture, irrigation, and water resources in its focus area were priorities for the team in its first semester. The provincial government (SekDa) facilitated the team with making its acquaintance with and introducing its program to representatives of key stakeholder agencies at provincial and district level. This opened the path for the team's survey to commence. At district level, the team visited various technical government agencies for purpose of collecting data and information. The program had positive engagements with the head of the Balai Besar Wilayah Sungai (BBWS) Bengawan Solo, the provincial government, and various district government agencies. The first PCC meeting was conducted on 01/12/2015 at the Ministry of Public Works/Directorate of Irrigation and Swamps. In May 2016 – as decided in the PPC Meeting of 01/12/2015 – the formal launching of TIRTA will take place in East Java. This will be a good moment to refresh the understanding of all stakeholders of TIRTA and of the potential of private sector investment in irrigation services.

The central elements in the Stakeholder Relationship Management strategy are the introduction of the TIRTA model – with private sector roles in irrigation services at its core element - and receiving/maintaining the government's interest in and support for the program. The team will seek the government's endorsement of its opening-portfolio and agreement on liaison and communication arrangements. Following-up to the government's request for periodical updating in respect of program activities, TIRTA will monthly provide a brief activity report in Indonesian to the PRISMA Provincial Manager, for submission to the relevant provincial and district level agencies. The team will seek to engage government in learning opportunities that interventions offer, such as (i) a review of strengths and weaknesses of various management scheme arrangements; and (ii) appropriate design of pump-station configurations and pipelines.

Stakeholder Relationship Management – Private sector: The team will relate to three groups of private sector entities. Firstly the service providers and customers directly participating in targeted interventions; secondly partner organisations which will implement intervention actions; and thirdly, service providers and customers not directly participating in targeted interventions, but will be in one way or another be influenced by the program, such as by publication materials, demo sites, workshops, and trainings.

A key element of the team's strategy for engagement with irrigation services providers and with communities in need of irrigation services is the need to prevent raising expectations of direct program contributions to the infrastructure investment for expansion of services. A second element is the need for cross-checking information to provide an opportunity to service providers and service receivers to air different views.

Operations & Finance: The team made a rapid start up in July 2015, starting work in the AIP-Rural office within one week of contract signature. Operations from Bojonegoro Town started on 12/08. Recognising lessons learned from PRISMA, key to the successful delivery of TIRTA will be ensuring continuous communication between the operations and finance team and the technical delivery team. A key step for TIRTA in realising effective operations/ technical coordination will be ensuring that the operations team are fully across initial partnership deals.

Response to DFAT's Partner Performance Assessment: In response to the mid-year PPA, the team will be focusing on improving budget forecasting for interventions; completing the EIA as soon as possible; strengthening its capacity with regard to GESI; and arranging that resources for leading the team in Bojonegoro and preparation and timely submission of reports are adequate.

1. INTRODUCTION

1.1. This Report

This report presents TIRTA team's first 'Progress Report and Implementation Plan' (PRIP) and its 'Four-Year Strategic Plan'. Both are payment-related milestones with submission deadline on 23/03/2016, defined in Contract Schedule 1, Clauses 11.6-7 and 11.8. The integration of progress reporting, strategy formulation, and implementation planning into one document streamlines the processes for and enhances the coherence between reporting. The progress part covers the first semester of TIRTA: July-December 2015; the Strategy part covers the full period set for the program, i.e. until December 2018; and the planning part looks 12 months ahead, thus covering the period January to December 2016. The PRIP applies a rolling planning method with updates every six (6) months. In order to synchronise the PRIPS with the calendar year semester's, the next PRIP is due 24/06/2016 and will report progress over January – June 2016 and present the July 2016 to June 2017.

The Four-Year Strategic Plan establishes a first road map for reaching the program goal by December 2018. This will be updated regularly and used as a basis for the PRIP, and includes projections of performance targets and required resources; and strategies for cross-cutting program aspects.

1.2. The Programme Goal

TIRTA aims to improve the incomes of 10,000 small-holder farmers, by at least 60% by December 2018. The programme is designed to achieve this in accordance with the M4P approach: namely by addressing the underlying constraints to the private-sector expansion of irrigation services. The above target can be effectively achieved if 3,500 ha of non-irrigated land is brought under irrigation.

TIRTA will operate in three provinces: East Java, West Nusa Tenggara and East Nusa Tenggara. In its first year TIRTA will focus on the pump-lift irrigation service market in three districts along the Lower Bengawan Solo (East Java Province, see map in Annex A).

The Bengawan Solo is an inter-provincial river. The central government's river basin organisation, 'Balai Besar Wilayah Sungai Bengawan Solo', manages the river basin's water resources. Water allocations are reviewed quarterly in the basin's council/stakeholder forum. The water balance includes an allocation for maintaining a minimum environmental flow to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems. Commercial businesses, such as industries, are required to obtain a permit from the Balai Besar in order to be allowed to use the river's water. So far, pump-lift irrigation stations have been exempted from the need to apply for a permit.

2. POLICY CONTEXT & GOVERNANCE

2.1. Policy context

National policy mood: Farming communities in Indonesia have traditionally regarded irrigation service provision as government's responsibility and water as a free resource. National, provincial and district level irrigation policy has historically been shaped by these interlinked expectations. Through TIRTA's design and in its first 6 months of implementation there has been a consistently recognised risk that government schemes and subsidies that seek to fulfil this expectation could diminish private investor interest and distort the market. Counter to this, the team's first engagements with government and surveying the realities on the ground TIRTA has witnessed continuing signs of government's appetite to execute a private sector focused policy agenda, for government to reduce its role in irrigation and actively facilitate the increased involvement of private sector actors. This situation offers a range of opportunities that have been critical to shaping TIRTA's politically sensitive approach to start up and the strategy for program implementation outlined below.

Implications for TIRTA on the ground: A clear example of this policy context in action has been identified in the Bojonegoro government's program for establishment of a number of pump stations along the Bengawan Solo in Bojonegoro District, for subsequent hand over to the respective local communities for their utilisation. The TIRTA team's survey work found that communities which received such pump stations find it initially difficult to manage them effectively, thus limiting the sustainable positive impact they can have. Several of these communities have entrusted the management of their new pump station temporarily to a private sector irrigation services provider (entrepreneur/investor) until such time that they are ready to manage the station self. This example reinforces the team's assumption that continued government 'gifting' of pumps and similar subsidies may in fact offer opportunities for facilitating increased community and private sector involvement rather than stifling such activity.

2.2. Project Governance

Program oversight from Palladium: In recognition of the need to provide sustained technical and managerial oversight to the TIRTA team, particularly in the early phases of the project, Palladium has mobilised considerable resources to this end. The Palladium Project Director (PD) and Swisscontact Technical Director (TD) provided early M4P induction and support at project inception. This support was focused on project planning, implementation and management, ensuring good working relationships with the Secretariat and DFAT, and seeking early synergies between TIRTA and the other AIP-Rural components. This initial support has been supplemented by almost monthly visits to the program by the PD, regular weekly telephone meetings, and the facilitation of further, consistent, on the ground M4P capacity support from a consultant. In recognition of TIRTA's needs, in December 2015 Palladium reinforced its program oversight and support function by engaging Senior Economic Development Practice Area Specialist (Tim Stewart) to provide additional corporate support to the team on a continuing basis. Further ad hoc support has been provided by Practice Area Specialist Lewis Brimblecombe, and planning is well progressed for a Palladium Young Professional to support the team from mid-2016. A further internal Palladium-Swisscontact strategic review of TIRTA by the PD and TD is scheduled for the first week of April where the SRP findings will be reviewed along with any corresponding adjustments to TIRTA's strategy and management.

The Project Coordination Committee & its Recommendations: At the national level, coordination and communication for TIRTA is managed through a Program Coordinating Committee (PCC), co-chaired by DFAT and the Directorate of Irrigation and Swamps (Ministry of Public Works). On the 1st December, TIRTA's first PCC meeting was held at the Ministry of Public Works in Jakarta. The meeting was positive and reinforced TIRTA's assessment of GOIs interest in a private sector policy agenda for tertiary irrigation. The Directorate expressed interest in working with and learning from TIRTA as a potential vehicle to pilot private sector irrigation models that could be scaled up in other areas of Indonesia. The PCC encouraged TIRTA to coordinate closely with the Balai Besar WS Bengawan Solo and with district-level administrations, and appointed one of its staff as a contact point for the program. It was agreed that the next PCC meeting would be held in May 2016, in East Java, and would include joined field visits.

SRP Meeting and what were its comments and recommendations on TIRTA: The Strategic Review Panel (SRP) came to Surabaya in late September to review progress on TIRTA's mobilisation and plans for the program's first 6 months. They recognised that TIRTA had mobilised well and had a clear initial plan for site identification, survey design and responding to safeguard issues including assessing environmental impact. The SRP also praised early collaboration with PRISMA around operations and government engagement identifying the mobilisation as representing a 'good example of whole-of-portfolio delivery resulting in more efficient and effective delivery. They reinforced the message that TIRTA should focus on East Java rather than scoping other provinces and highlighted the importance of ensuring that intervention designs were assessed for additionality before execution. The next SRP meeting will be held in March 2016 and will review TIRTA's progress.

3. PORTFOLIO MANAGEMENT

Portfolio management is the central activity of the TIRTA team. It is crucial for the team to develop the required capacity for this task, and this section outlines the capacity building activities conducted with the team towards this end. The activities outlined below cover roughly three stages: survey and stakeholder mapping; development of selection criteria, and the design of an opening portfolio of interventions. An outline work plan for TIRTA is in Annex B.

3.1. Progress to Date

3.1.1. Capacity Building

From day one of mobilisation, capacity development of the TIRTA team - none of whom had worked on M4P programs before - has been a primary focus. The first stage of the team's capacity building process was directed towards establishing a good understanding of its area of operation: the Lower Bengawan Solo and its pump-lift irrigation market.

Given the need for a rolling start and the small team size, TIRTA took a different approach to the PRISMA intensive classroom-based training model. The TIRTA training process involved pairing a small number of expert-led workshop sessions on the M4P approach, market analysis, intervention design and MRM with a program of 'learn on the job' field activities specifically related to the stakeholder mapping and site mapping. This training program was facilitated by Promark. Mr Rana Rofiqul rotated every two weeks between theoretical sessions in Surabaya and then supporting applied practical analysis in the field in Bojonegoro.

As indicated in the Updated Mobilisation Plan of 22 August 2015, the team planned to start a first batch of interventions by early April, when the danger of river floods has subsided and the annual pump-lift irrigation season will start. The identified need for capacity building in early 2016 was for (i) intervention selection; (ii) intervention design; and (iii) deal-making, all of which warrant deepening of analytical skills. In November/December, these needs were discussed with Promark and a plan was made for the first major step: a planning workshop to be conducted in February, immediately following the scheduled completion of the survey reports by late January. In response, Promark allocated 54 international STA days and 64 national STA days for 2016.

3.1.2. Survey and study

Over the first six months, the team has developed a thorough understanding of the pump-lift irrigation services market along the Lower Bengawan Solo through a survey undertaken in two stages.[1] Survey 1 identified the sites with the most potential for irrigation service expansion; Survey 2 mapped the stakeholders in the envisaged irrigation service expansion areas. The team established a database of all existing pump stations, a map and a photo library.[2] These surveys are now being used by the team to inform the design of interventions, and make impact projections.

Survey 1 - Findings: Survey 1 was completed in October, and identified a wealth of pump-lift irrigation schemes along the Lower Bengawan Solo, in Bojonegoro, Tuban, and Lamongan Districts. These are currently serving 22,000 ha of paddy fields. Services are provided by entrepreneur/investors and by community organisations, such as HIPPA, BUMDes and Kelompok Tani. Entrepreneurs are mainly at the forefront of the gradual expansion of pump-lift services along the river, with community organisations often taking over management from entrepreneurs over time. The study identified some 66 villages with a total of 6,600 ha expansion potential expansion, most (>2/3) of which is located in Bojonegoro District (see Annex

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1 For the survey findings, analysis, and recommendations, see the TIRTA team's Stakeholder Mapping Report of February 2016.

2 **Map** - https://www.google.com/maps/d/u/0/edit?mid=zEHQUP2Muvec.kzh9OZl17uvc.
Photos - http://www.panoramio.com/user/8843658.

C). The expansion blocks identified vary in size from a few hectares to 700 ha. Gaining access to irrigation services would allow farmers on this land to grow 1-2 extra crops per year and substantially improve their income.

Among the environmental concerns relating to the Bengawan Solo, the most relevant are land degradation in the upstream watershed, flooding (which destroys pump stations and the crop, jeopardizing payments to service providers); water pollution from industry and agriculture (textiles, food processing & agrochemicals) and water diversions in the dry season.

TIRTA will catalyse the irrigation services expansion process by helping the market develop capacity for dealing with, or removing constraints effectively. The primary constraints are (i) the low efficiencies in pumping and in conveying and distributing water; and (ii) the high business risk for service providers. Constraints of secondary importance – more location-specific and in some cases successfully overcome - are (iii) weak business management and difficult access to financing; (iv) the complexity of expanding service across a desa border; and (v) physical obstacles, such as roads, railways, river/canals, and residential areas.

The survey identified 'scheme size' and 'scheme management arrangement' as the principal differentiating factors for pump-lift irrigation scheme typology. Most schemes belong to one of the following categories:

1) Entrepreneur/investor-provided services:
    a. 'Large' entrepreneur/investors, managing services in multiple schemes of >100 ha per scheme
    b. 'Small' entrepreneur/investors, managing services in one scheme of <100 ha
2) Community organisation-provided services:
    a. BUMDes-provided services
    b. HIPPA-provided services
    c. Kelompok Tani-provided services

The team were struck by the predominance of existing private sector investment in schemes and the appetite for future investment by entrepreneurs. Risk for the private sector relates to the high cost of the initial investment and the high cost of service provision: (i) an early cancellation of their contract means that they may lose a substantial part of their investment; and (ii) the crop is damaged, for example by a natural disaster, it will directly cut into their revenue for the season, because the fee for the service is a proportion of the harvest.

Much of the potential expansion area requires irrigation water to be pumped higher and conveyed further, and the efficiency of the technical processes will need to be raised to make this attractive. Another finding was that river flow available along the Lower Bengawan Solo not only depends on natural run-off from rainfall upstream, but also on the operation of an upstream reservoir (Wonogiri) and a number of barrages on the river. Gradually releasing stored water makes it possible to maintain a higher river flow during dry season. However, in some years dry season flow can be quite low and result in upstream and downstream demands for river water competing.

By October/November 2015, the team had identified nine potential expansion blocks as attractive opening intervention candidates. They have a potential total expansion area of 2,100 ha, of which a part could be realised by June/July and the remainder over the next seasons.

***Survey 2 - Findings*:** The mapping helped the TIRTA team to gain a better understanding of the pump-lift irrigation services market and its actors along the Lower Bengawan Solo with regard to who they are, what roles they play, and what interests drive them to take part in the market.

This survey has formed the basis for an initial selection of the most promising of the 66 villages identified in stage 1 as being interested in and having potential for expansion of irrigation services. This shortlist will form the basis of initial intervention design in February and March.

Box 1: Opening portfolio intervention areas, 1,600 ha (preliminary, as formulated in December 2015)

Tulungrejo & Trucuk: Background: A major further expansion of pump-lift irrigation services is possible if the cost of pumping (Rp/liter), the losses in water conveyance (% of pumped water), and the water demand of the crop (liter/net value of produce) can be reduced. Non-paddy crops need less water than paddy. TIRTA's role would be to facilitate the development, testing, and ultimately demonstration of a non-paddy crop production technology for application in the highest irrigation zones. This couple of villages shares a currently not cultivated (fallow) area of 25 ha. The light soil is not suitable for paddy but has good potential for non-paddy crop cultivation, particularly vegetables. One of the two Kelompok Tani has been granted a small pump station. A producer/seller of drip irrigation systems could be engaged to demonstrate the irrigation technology. A vegetable trader interested in buying the produce could be engaged to provide the cultivation technology and inputs.

Kedungprimpen & Gedongarum: Each of the two villages has its own irrigation scheme. They are similar to each other: both are managed by desa-owned enterprises (BUMDes) and have pump stations granted by local government. They would like to expand their service across their village boundaries but funds for the investment are not sufficient. Kedungprimpen eyes an expansion of 225 ha and Gedongarum of 100 ha. They have regular access to lenders but have not succeeded in getting a large enough loan. A major weak point is their management. They have no long-term business plan, and always distribute the profit seasonal to their shareholders. A business development services organisation could be engaged as a partner to assist them develop a business plan for the expansion and obtain the loan they seek.

Malo: A very large multi-desa schemes initiated in 2015 by local government, and meant to ultimately cover 636 ha. The irrigation infrastructure is still limited and can only serve about 10% of the potential. The HIPPA, supposed to manage the scheme, are very weak and have engaged an entrepreneur for operating the station and providing the service. The intervention will help the HIPPA to self-assess and consider as an option to find a sufficiently strong investor to expand the infrastructure system to the furthest villages and manage the services for an agreed period after which the HIPPA could take over.

Leran & Sukohardjo: A very large entrepreneur/investor manages a scheme covering 150 ha in Sukohardjo and 50 ha in Leran village. He eyes expansion into Leran of initially 200 ha and later a further 500 ha and possibly even 1,000 ha. However, he does not want to invest in the expansion unless sure that the currently rain-fed land will produce high yields. Farmers would need to cultivate their land much more intensively than they are used to now. Inputs will need to be made available on credit and cultivation technology training provided. TIRTA could facilitate this.

Rendeng and Ngoken: Small entrepreneur/investors manage schemes in these two villages. They are interested in expanding their service across the desa border (Rendeng 30 ha; Ngoken 80 ha), but do not have the capital for the investment. The intervention would facilitate formulation of business plans and access to financing. Possibly the intervention can cover more blocks than these two.

3.1.3. Early Engagement

By the end of December, many program stakeholders in the area had learned of 'TIRTA', a programme interested in expansion of pump-lift irrigation services. The survey was carried out in-house. Stage 1 brought the team directly in touch with village heads and staff, board members of desa-based community organisations, such as HIPPA, Kelompok Tani, and BUMDes, and a range of entrepreneur/investors and their pump-station management staff. In addition, the team visited, mainly for purpose of data collection and for 'testing the waters', a series of local government agencies related to agriculture, irrigation, and water resources. During stage 2, the team interviewed individual households.

In all encounters, the team members introduced themselves and gave a brief explanation of TIRTA. In its meetings, the team always finds the interviewee expecting that TIRTA has come to build pump stations and construct infrastructure, such as government programmes have been and are doing. Notwithstanding some disappointment, encounters sparked interest on both sides in a number of instances: on the team's side in the expansion potential reported by the interviewee, and on the interviewee's side in the possibility of acquiring support from TIRTA with realising their expansion idea (in many cases the use of the word

'expansion plan' would not be appropriate). On several occasions, the team was visited at its office in Bojonegoro by large entrepreneurs and village heads, who wanted to find out more about TIRTA and what it was offering.

In this manner, the survey work led to the development of a network of initial contacts between the team and potential program participants.

Program Strategy till 2018

3.1.4. Capacity building - long term plan

The TIRTA team will continue the building of its own capacity by combining strategic training workshops with 'on the job' training in the field. As the program progresses and initial deals are made, team capacity will develop as they learn from their experiences. Accordingly the more formal external Promark-provided 'teaching workshops' will be phased out, and a more fluid capacity building and mentoring style will be phased in responding to the team's needs at crucial junctures in the work process. These will be informed by external feedback from PROMARK facilitators and by broader feedback from SRP missions, the PPAs and Palladium technical staff from the Economic Growth Practice Area. Importantly, this will cascade through the Team Leader to inform capacity building for individuals in the team.

Whilst the team's capacity will continue to grow, it is recognised that the upwards trajectory will not be the same on all issues or for all team members. One area of identified weakness at this stage is around the team's capacity for gender analysis and mainstreaming which will need to receive extra attention and be continually monitored as the program develops. Also as the programme evolves from design, to full implementation it is recognised that the senior management team requires some specific mentoring to guide them through the process of practical facilitation and making the first deals.

The Team leader attended the DCED course in Bangkok, prior to his mobilisation. The MRM Manager will attend the course in March 2016. A DCED Consultant will be engaged to assist the team with ensuring that the MRM system meets DECE standards.

3.1.5. Achieving the outreach target

The key impact trigger for TIRTA is the expanded area under irrigation. As a basis for planning the intervention portfolio, TIRTA adopted from a set of projection curves shown below, the realistic 'less steep' curve (see Figure 1). This curve was presented in the Updated Mobilisation Plan and included in the presentation made during SRP 4, in September 2015. It indicates (as a minimum) cumulative achievements by June/July 2016 (month 12) of 88 ha and by December/January (month 18) of 225 ha.

The indicative opening intervention portfolios of October/November 2015 of 1,600 ha (Box 1) and the update of February 2016 of 1,725 ha (see Figure 2) are considerably larger than the above minima indicated in the projection. This suggests that it should not be difficult for TIRTA to achieve its minima. If the 88 ha by month 12 will not be achieved, for example because the deal-making takes longer than expected, then this would not endanger achievement of the next cumulative target of 225 ha by December .

3.1.6. Key strategy elements

For maximum impact within the available timeframe and resources, the following elements are key:

1) Focus on Kabupaten Bojonegoro, where availability of expansion potential is large (2/3 of identified total potential)
2) Utilise the established database covering the 174 villages (desa) along the river, with 66 expansion blocks (jointly 6,600 ha) as the basis for selection of the most promising blocks
3) To achieve substantial outreach early and show that the model works, select a number of large blocks, each covering at least 100 ha

4) To make substantial future expansions possible, i.e. beyond what is currently perceived as economically feasible, select 1 or 2 smaller areas for establishing, testing, and demonstrating high performance pump stations economically serving irrigated non-padi crops
5) Develop interventions to address the most frequently observed constraints to expanding the irrigation service, such as (i) crossing village borders; (ii) conveying water to areas relatively remote from the river; (iii) pumping water higher, to serve areas at higher elevation; and (iv) business planning and management
6) Postpone cross-cutting interventions until Year 2, such as for reducing business risk and ensuring water allocation

Figure 1: Outreach Projection

Total outreach by end of each semester								
End of month	**6**	**12**	**18**	**24**	**30**	**36**	**42**	**48**
Projection adopted				'Less steep'				
Total nr of small holders	-	250	644	1,264	2,241	3,779	6,202	10,018
Assume 1: average holding area				0.35	ha			
Total hectares covered	-	88	225	442	784	1,323	2,171	3,506
Assume 2: average intervention coverage				100	ha			
Total nr successful interventions	-	1	2	4	8	13	22	35
Incremental nr successful interventions	-	1	1	2	3	5	8	13
Assume 3: average success rate of attempted interventions								
	33%	33%	50%	50%	50%	67%	67%	67%
Incremental nr of attempts needed	3	4	4	7	11	13	20	
Total nr attempts needed (if no systemic change)	3	7	11	18	29	41	61	
Assume 4: expansion through systemic change in existing interventions and outside								
Expansion in equivalent interventions	-	-	1	1	2	3	5	
Incremental nr of attempts needed	3	4	4	6	9	10	15	
Total nr attempts needed (if systemic change)	3	7	11	16	25	35	50	

	Village/Sub-district where pump station is (will be) located	Expansion potential (ha)	Irrigation services governance	Irrigation services provider	Has the pump station been established?	Intervention target during dry-season 1 (ha)	Intervention target during dry-season 2 (ha)	Total target by end of 2016 (ha)
1	Tulung Rejo/Trucuk	10	Farmers group	Not yet decided	Yes	10	-	10
2	Kanten/Trucuk (1 & 2)	180	Head of Village	Small entrepreneur	Yes	100	60	160
3	Rendeng/Malo	100	Head of Village	Small entrepreneur	Yes	30	-	30
4	Kedungprimpen/Kanor	225	BUMDes	BUMDes/Seksi Irigasi	Yes	225	-	225
5	Kliteh/Malo	636	GHIPPA	Not yet decided	Yes	150	150	300
6	Piyak/Kanor	750	GHIPPA	Not yet decided	Firm plan	150	150	300
7	Leran/Kalitidu	1,200	Head of Village	large entrepreneur	Yes	200	500	700
	TOTAL	**3,101**				**865**	**860**	**1,725**

Dry-season 1:	01 April 2016 - 31 July 2016	BUMDes:	Village-owned enterprise
Dry-season 2:	01 August 2016 - 30 November 2016	HIPPA:	Water Users' Association (village-based)
		GHIPPA:	Federation of HIPPA

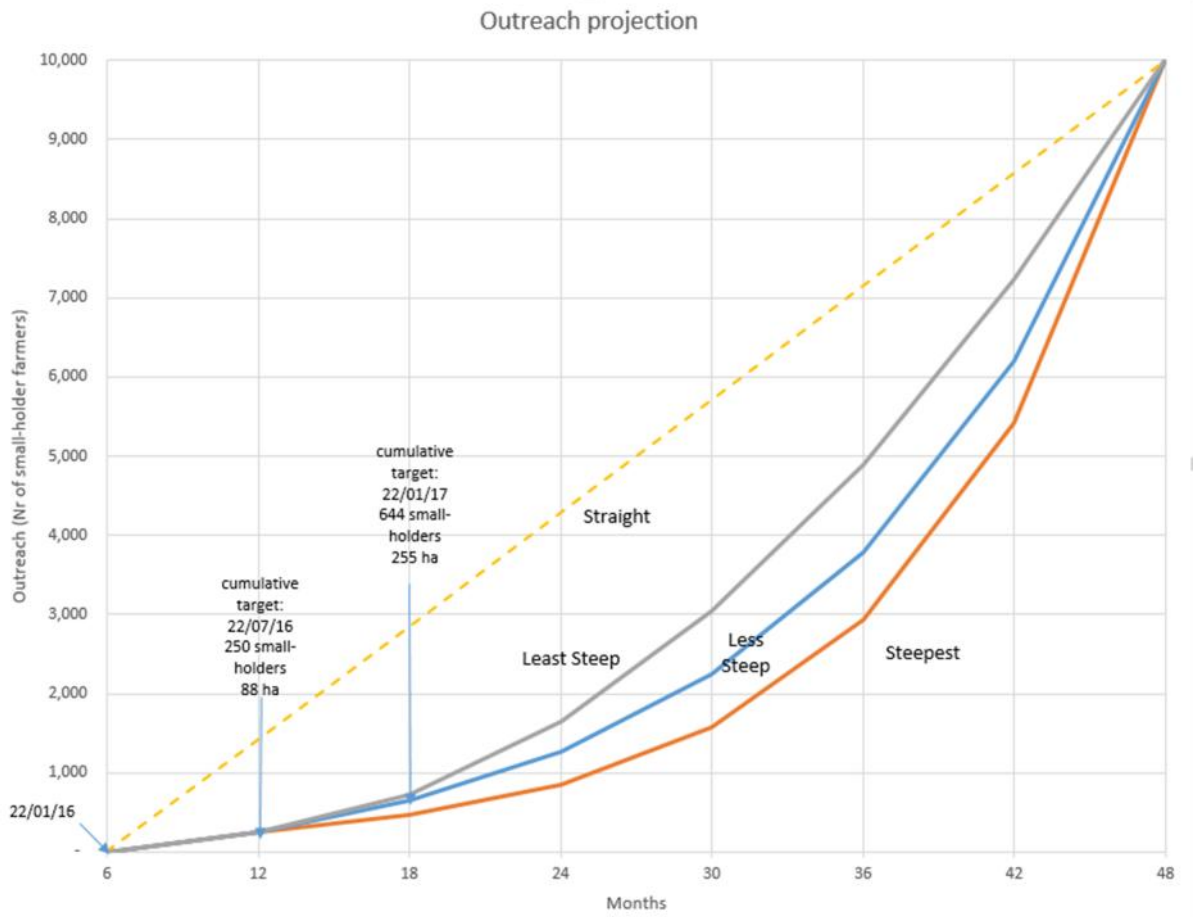


Figure 2: Indicative Intervention Portfolio and Expected Outreach (Feb 2016)

3.1.7. The Logical Framework Milestones

The TIRTA Team regards the program's Logical Framework as highly useful in providing guidance for achieving the target via the indicated Milestones (updated version, November 2015, included as Annex D, for a flow chart type depiction, see Annex G). The team has developed its activity plan and budget accordingly.

The LogFrame distinguishes six lines of work. At the time of writing this PRIP, the team is well on track with regard to Line 2's Outputs 2.1, 2.2, 2.3, and 2.4, which form the central back-bone of the achievements to realise. It looks that in this line, TIRTA may soon get ahead of the Milestone dates and to possibly exceed the associated targets. The supporting work set out in Line 1 has lost much of its relevance, now that the team's survey has identified all potential expansion blocks and can select which one to approach. In order not to fall behind, TIRTA will have to speed up in two lines of work: Line 4: Training of HIPPA in Management, and Line 6: Establishment of Pump Configuration Sites. Line 5 concerns farmer training for crop productivity enhancement and the first output is due in May 2016.

3.1.8. Intervention Design & Implementation

Diversified initial portfolio: The TIRTA team considers it important for its interventions portfolio to be diversified in terms of size of the envisaged irrigation area expansion, management arrangements, and crops to be produced. This will enable the programme to gain experience in dealing with a wide range of aspects constraining the irrigation services market, and combine interventions that provide potential quick, slow and slowest wins with differentiating risk profiles. Experience with a diversified portfolio will yield a better insight in which types of expansion blocks to prioritise and which to avoid in future. In addition it will enable identification of common constraints that can be addressed with second generation scale-up and crowding-in interventions. However, in its opening portfolio, the team will mainly select schemes with an expansion potential exceeding 100 ha, and combine this at a maximum with 1 or 2 smaller schemes where the focus will be on developing the model for irrigation services to non-padi crops at higher elevations.

Considering size: At first glance, large blocks look more attractive as candidates for intervention but would be riskier to take on (technically, financially, socially, and local-politically) and will likely require a long lead-time. Small expansion blocks look unattractive because of high project transaction costs and relatively low development returns. However, at the early stage of TIRTA, such small blocks can probably be realised more quickly and could then offer welcome learning and demonstration opportunities. Medium size blocks (25-100 ha) form a compromise. TIRTA therefore would do well by combining expansion blocks of various sizes in its first batch of case-specific interventions and learn via the feed-back from its MRM System what the type-associated opportunities and challenges are.

Site-specific interventions: For the first year (2016-2017), the team will select a number of schemes with attractive potential expansion blocks as focus areas, and develop a specific package of interventions for each block. It is expected that there will be a degree of similarity among the blocks in their needs. This will make it possible to attract partners who will develop and implement standard intervention activities across the selected schemes, such as introductory trainings, and follow these up in each scheme with more tailored activities addressing the specific local needs. The following year (2017-2018), after the interventions have been tested and fine-tuned, they could be further standardised and implemented widely throughout the Lower Bengawan Solo area in order to improve the market more generally and ensure future sustainability and scaling up, with the understanding that results should not be dependent on future TIRTA or Government support.

Box 2: Initial Selection Process

(a) Select a number of large expansion blocks, preferably with capable entrepreneur/investors, and clearly interested farmers, with the objective of achieving early outreach and establish the program's credibility
(b) Add a number of larger and more complex expansion initiatives, needing more time for interventions to produce results - such as new or existing community organisation-managed schemes (HIPPA, BUMDes, Kelompok Tani) which are area-wise promising contributors to achieving the outreach target
(c) Take on 1 or 2 small-medium-size blocks for developing, testing, and demonstrating viable systems for production of non-paddy crops, for subsequent introduction in the highest and most remote zones of large schemes and break out of the current boundaries to irrigation services (this is likely the best solution for small-holders cultivating land that is further away from the river and at a higher level)
(d) In the first year, prioritise traction where potential is largest: in Bojonegoro District

Depending on the specific needs of a given scheme, the intervention package would include a combination of the following facilitated activities:

1. **Establishment of agreement:** Within the community and its representative administration and irrigation organisation on their long-term aspiration (vision/mission), including the choice between self-management of the services or attracting an entrepreneur/investor for this; optional buy-out of the entrepreneur/investor; possible expansion of service coverage and stages in which this should happen; ways to ensure continuous improvement of services and of agriculture production efficiency by reduction of pumping costs, more efficient water distribution, and reduction of risks; and the terms of service agreement between the community and the service provider.

2. **Improvement of pump station and canal efficiencies:** Realising the maximum potential for expansion of irrigation services will require demonstration that it is technically and economically feasible to irrigate fields at higher elevations. TIRTA is considering promoting the establishment of a demonstration unit/service and other information conduits to showcase and assess management of pumping and conveyance. The team expects to find pump suppliers who are interested in demonstrating their product.

3. **Access to financing:** Community organisations find it difficult to borrow money as they lack business acumen and business planning capacity. TIRTA is considering helping local financing organisations developing a better understanding of the business of irrigation services; develop appropriate procedures for loan applications; and providing training to potential applicants.

4. **Strengthening community organisations:** Developing organisational, business, and technical management capacity of community organisations. This would support assist/support service receivers and providers in thoroughly analysing their business case, filling gaps in business-case related knowledge, understanding, and skills.

5. **Introduction of non-paddy crops and drip/sprinkler irrigation:** The higher the water has to be lifted and the further its needs to be transported in order to reach a field, the higher the cost of the service. Non-paddy crops consume considerably less water than paddy. TIRTA could promote the development of a pump-lift irrigation services model for non-paddy crops, such as vegetables or fruit trees, with drip or sprinkler irrigation. To create a stepping stone, a first step would be a limited-scale intervention, preferably for farmers already growing a mix of crops (tumpang sari) the result of which can serve as a non-paddy-system-dedicated demonstration unit. This intervention would require facilitation of decision-taking on a suitable product and finding a suitable market. Large scale grocery stores who are interested in the production of certain crops could become supporting partners for introducing the needed technology.

3.1.9. Cross-cutting interventions

In addition to site-specific packages of interventions, the team plans to undertake a number of cross-cutting interventions, starting from year 2. As mentioned, the team observed that irrigation services providers are exposed to a high level of risk. While on the one hand this risk pressures the provider to deliver a good

service, it also hold them back. A different spread of the cost burden, a strong contract formulation, and a convincing conflict resolution mechanism will strengthen the entrepreneur's appetite in expanding their business the expansion process. Options to consider are **cost-sharing of infrastructure development with communities**, e.g. using Dana Desa; introducing more robust and transparent agreements, perhaps through access to affordable legal aid/mediation; and crop insurance.

One factor here is the **government's preference for community organisation management of irrigation services over entrepreneur/investor management**. TIRTA will work with local government in evaluating the two models on their advantages and disadvantages and in applying the result in future development policies and programs.

Another factor to seek to **address is the difficulty that village community organisations have when expanding their service to a neighbouring village**, usually at greater distance from the river. In general, the community of the village already enjoying the irrigation service does not agree to an expansion out of fear that if water availability falls short of demand, they will have to share in the shortage, while the community of the village to which the service will be expanded is reluctant to pay a fee that is higher than charged in the village where the pump station is located. The team will analyse the cases where expansion is constrained due to a border issue and facilitate development of suitable model arrangements.

A third factor concerns the **water distribution along the Bengawan Solo**. Interventions would seek to facilitate a dialogue among the key stakeholder agencies with the aim of establishing clarity on water allocations and water rights, particular for the villages along the Lower Bengawan Solo using river water for irrigation.

A fourth factor concerns facilitating a **solution to the physical blockage to irrigation expansion** constituted by Highway No 20 and the parallel railway. This would start with a survey of expansion potential and need for additional culverts.

Last but not least, facilitating **improved local government capacity**. The Bojonegoro Administration has planned establishment of a number of large pump-lift irrigation schemes, each covering some 5-7 desa, but struggles technically with implementation. TIRTA could offer local government assistance in developing its capacity for carrying out those programs.

Exploring the wider agenda: Possibilities for widening the TIRTA agenda are the following:

1. *Introduction of private sector involvement in management of conventional irrigation schemes*: The pump-lift schemes along the Lower Bengawan Solo demonstrate the large potential for private sector and community management of irrigation services. TIRTA could assist Public Works with analysing the underlying conditions and study the possibilities for transfer of the same principles to promote private sector and community management of conventional irrigation schemes.

2. *Potential for interventions elsewhere in East Java:* There are two other relatively large river basins in East Java: Brantas and Pekalen-Sampean. Depending on how the work in the Bengawan Solo basin develops, the TIRTA team might consider studying the potential for interventions in those basins.

Cooperation with other AIP-Rural Programs: A number of the above interventions would benefit from supplementary interventions by or expertise available in other AIP-Rural programs:

PRISMA - Explore a possible cooperation in exploration of crop technologies and markets for TIRTA interventions seeking to introduce non-paddy crops.

ARISA - In September the TIRTA Team had an initial engagement around identifying technologies for reducing pump-lift cost, improve water distribution efficiency, and reduce crop irrigation water demand. If a cooperation is beyond the ARISA remit, then perhaps CSIRO can be engaged in testing innovative opportunities.

SAFIRA – Lack of access to or a disappointing response by financing services is a general constraint to the expansion of irrigation services. SAFIRA could work with Banks to develop financial products specifically for

financing (i) the investment in pump-lift irrigation scheme establishment or expansion; (ii) the seasonal operation cost.

3.2. Strategy Execution 2016-17: The Opening Portfolio

3.2.1. Capacity Building

The Promark support program for 2016 will built forth on the achievements during 2015 and commence with development of adequate initial capacity for designing interventions, initiated in a 3-day Planning Workshop, to be conducted in Bojonegoro in the first week of February. The workshop's key-outputs will be (i) a suit of concrete preliminary-level intervention designs and (ii) a work program for the first semester of 2016.

The team will invite the Promark workshop planner/designer(-s) to visit its Bojonegoro office in January for gaining acquaintance with particular aspects of the program and the pump-lift irrigation market, and for assessing the staff's training needs.

The workshop will be followed by regular Promark visits for hand-holding support, helping the team to develop the intervention designs to a sufficient degree to serve as a basis for approaching partners and developing the necessary deals in March. Depending on how the team progresses, the team may call upon Promark for additional trainings.

In late June, the team will conduct an internal evaluation of its performance during semester 1 and plan its work for semester 2. To facilitate and support this, a second Planning Workshop is envisaged.

3.2.2. Opening Portfolio Development

Stakeholder Mapping Report as the basis: The team will prepare two survey reports, which will jointly constitute the Stakeholder Mapping Report, a contractual milestone due for submission to DFAT by 22/01/16. The survey data will be processed and the insights thus gained will be used for designing the interventions.

Selection of the opening portfolio of interventions: The team will select from among the identified 66 potential expansion blocks (6,600 ha) a first portfolio of intervention targets. The tentative selection made after survey stage 1 will serve as a starting point (for selection criteria, see Box 2). As explained in the 4-yr strategy plan (Section 3.1.2), the team composed a diversified portfolio of interventions, applying the listed selection criteria. The first batch of interventions will be case-focused, and the resulting expansions will form a basis for subsequent scale-ups and a set of more market-wide interventions.

Design of the first batch of interventions: The TIRTA Team's strategy as originally presented in the Updated Mobilisation Plan of August 2015 projects an outreach achievement of 250 small-holders by the end of month 12 (June-July 2016). Assuming a (low) success rate in the first year of not less than 33%, and an average land-holding of 0.35 ha, this means that the team should set out to facilitate a combined expansion of 263 ha. The team already selected nine potential expansion blocks with a combined potential expansion area of 1,100 ha as candidates for the initial batch of interventions. Further assessment of their feasibility will take place in February and require for each selected block analysis of what specifically the constraints to expansion and their underlying causes are, formulating the interventions that would help the expansion happen, identification of resources requirement and intervention partners, considering their capacity and specific incentives, for which importantly business calculations will need to be made.

Whether an intervention design is ready for implementation will be decided by the Team Leader, after presentation by and consultation with the Deputy TL, the MRM Manager, and the Finance and Operation Manager. If warranted, additional consultations and checks will be made with the AIP-Rural Secretariat and PRISMA portfolio managers.

3.2.3. Implementation of opening interventions

Intervention implementation will start with approaching the key stakeholders (communities, service providers, village leaders) and partners with the objective of agreeing on 'co-operation in principle' around a preliminary idea. During follow-up meetings the idea and the details of the cooperation will be elaborated and an agreement formalised.

3.2.4. Government 'no objection'

The team will verify with local government has no objections, even endorses, the intervention plans (target date: March 2016).

Box 3: Plan of Next Steps and Realisation

In year 1, the interventions will be case-focused, and the resulting expansions will form a basis for subsequent scale-ups and a set of more market-wide interventions. The team envisages to follow the line of action in the table below.		
No	**Description**	**Indicative timing[3]**
1.	Initial selection of 8 to 10 most promising from among the 66 villages which reported interest in and potential for expansion of irrigation services Based on Stage 1 findings, consider the need to (a) produce a number of concrete expansions quickly, targeting 250-300 ha to be brought under irrigation by June/July 2016: demonstrating positive impact will help ensure positive stakeholder attitudes towards the programme and stimulate their interest (b) start early with facilitating a number of larger and more complex expansion initiatives: while they will need more time for interventions to produce results, they are area-wise essential for achieving the outreach target (c) gain experience with different types of service providers: (large) entrepreneur/ investors, community organisations (HIPPA, BUMDes, Kelompok Tani) (d) test and demonstrate viable systems for production of irrigated non-paddy crops: this is likely the best solution for small-holders cultivating land that is further away from the river and at a higher level (e) early on develop traction in District Bojonegoro, where most of the expansion potential is	15/12/2015 (completed, see Stage 2 report)
2.	Obtain a better understanding of the challenges in each of the selected blocks Interview stakeholders and make field verifications	31/01/2016 (completed, see Stage 2 report)
3.	Develop adequate initial capacity for designing interventions Engage Promark to provide capacity building	10/02/2016 (completed, see planning workshop reporting and immediate follow up work)
4.	Prepare preliminary intervention designs Analyse for each of the above blocks what specifically the constraints, and their underlying causes, to expansion are, list the interventions that would help the expansion happen, identify resources requirement and possible intervention partners	20/02/2015 (completed 29/02, see Panel comments)
5.	Decide which blocks to approach for participation in year 1 and what interventions to undertake Develop a set of criteria and critically evaluate the feasibility of each block. Decide interventions. Verify government has no objections, even endorses the plans	29/02/2015 (ongoing)
6.	Approach key stakeholders (communities, service providers, village leaders) and partners; make offers; and complete deals Engage Promark for additional capacity building.	15/03/2015

[3] As of 11/02/2016

In year 1, the interventions will be case-focused, and the resulting expansions will form a basis for subsequent scale-ups and a set of more market-wide interventions. The team envisages to follow the line of action in the table below.		
No	**Description**	**Indicative timing[3]**
7.	Implement the first season of the first batch interventions, monitor, re-assess, and adapt where necessary/useful Have the MRM systems well-established	01/04-30/06
8.	Review intervention season 1; plan for season 2; update strategies	15/07/2016

3.2.5. Monitoring and Results Measurement:

The team will have the MRM system well-established by April 2016, and a DCED Consultant will be engaged to assist the team with this. The first activities after the agreement has been reached, will be to develop the intervention baseline. This will be followed by the preparation of the Intervention Steering Documents, reviewing/refining the results chains of the interventions planned for implementation and the indicators to be monitored. The baseline studies for the interventions under implementation will be conducted in May. The paddy harvest is expected to take place in August and that will be the time to assess the results achieved thus far. The team will arrange for the DCED system 'in-place' results measurement audit to be carried out in early September. The audited results will be documented in the next progress report due the same month. The insights gained will be used to update the team's strategy and set out the plan for the next semester.

3.2.6. Expansion beyond East Java:

In the original design and log frame it was planned that the program would look to scope expansion into NTB and NTT in June 2016, to be followed by preparation of a Stakeholder Mapping Report for the area concerned. Responding to SRP recommendations (SRP 5, September 2015) and evidence on the ground, the team will keep its focus on East Java for as long as it takes to test the 'business model'. One important consideration is the expectation that potential for expansion of irrigation services in NTB and NTT might be quite limited, while requiring a high level of resources inputs to identify and develop. Another consideration is the desirability of demonstrating in East Java first that entrepreneur investment in irrigation schemes can be generated and results in wider access to sustainable irrigation services. A good basis for deciding on the expansion to NTB & NTT would be the data and information that will be contained in PRIP2, which is due for delivery in September 2016. This will also be the time of the AIP-Rural's Mid-term Review. This suggests that late September/early October would be the best moment for taking the decision, clearly in consultation with AIP-Rural Secretariat. SRP 6 is due in March 2016 and will be consulted in this respect.

3.3. Challenges and Lessons learned

3.3.1. Team composition and Recruitment

Recruitment of staff with combined skills of market facilitation and irrigation is very challenging. In its initial composition, the team composition was weak on technical expertise. In response, the team decided to recruit an experienced civil engineer for the position of third intervention coordinator. The effort succeeded, but only thanks to substantial efforts made.

3.3.2. Capacity building

The team is new to M4P and private sector development and requires adequate capacity building. This challenge has so far been effectively addressed. International STA-provided initial M4P training has been invaluable and the approach of providing training at key-junctures in the team's work process (rather than all at the start of the project) has been successful. A key lesson learned, though, was that for establishing a sufficient deep and detailed understanding, training would need to be delivered in Bahasa Indonesia, the language in which the team largely operates.

A second initial weakness is the team's lack of acquaintance with **mainstreaming Gender and Social Inclusion** (GESI) in planning, design, and implementation of its activities. Available to the team is a GESI

study undertaken in March 2015, specifically for TIRTA, at the Secretariat's request by Gillian Brown and colleagues. The paper provides the principal basis for TIRTA thinking around GESI issues (see Section 5.1).

3.3.3. Team division between Bojonegoro and Surabaya

The setup of a Bojonegoro office in the first months of program implementation has proven to be a very successful strategic move. Ensuring that the team have been able to truly understand the situation on the ground enables the team to rapidly engage with opportunities that emerge between stakeholders, which will be vital in the design, execution and monitoring of interventions. Nonetheless the division of the team between Bojonegoro and Surabaya has been an unexpected challenge for the Team Leader to fulfil his roles both of providing oversight of field work at the same time as managing whole of program activities and secretariat/DFAT engagement in Surabaya. In the next phase of design and deal-making, more frequent visits by the Team Leader to Surabaya will be needed to ensure adequate quality assurance and steer. To make this possible, resources will need to be acquired to support the TL in developing an efficient reporting system to deal with the team's reporting workload.

3.3.4. Reporting requirements

The large number of written deliverables in the first 8-9 months and limited team capacity to support this has proven a challenge for the effective management of the Team Leaders' time. This has been accentuated by the aforementioned division of the Bojonegoro and Surabaya offices. In response to this, the team intends to bring on board an additional team member to be based full time in Surabaya to support the Team Leader with report development and output coordination. In the interim. Palladium has corporately filled this gap through provision of short-term in-country and remote inputs from members of the Contractor Representative's Economic Growth team in Canberra.

3.3.5. Government engagement

At multiple levels, Government is involved in tertiary irrigation along the Bengawan Solo. The national level manages the Bengawan Solo, a cross-provincial river. District government supports development of pump-lift irrigation schemes that operate across multiple desa.

4. Monitoring & Results Measurement

The key function of results measurement is to provide a feed-back mechanism that facilitates the learning and improvement process of program implementation. An MRM system will be put in place to produce the data and information for tracking the Key Performance Indicators listed below (Figure 3), the first of which will come available in August/September 2016[4]. The MRM system will also need to produce the data for tracking DFAT's Aggregated Development Results (ADR, see Figure 4) [5].

Figure 3: Key Performance Indicators

KPIs PRISMA standard	TIRTA Design Document (Page 197)	TIRTA Contract 70204, Schedule 1
1. Number of poor farm HH who increase their income due to AIP Rural interventions	Poverty Outreach (number of smallholder farmers, male and female)	Poverty Outreach (number of smallholder farmers, male and female)
2. Net additional attributable income for targeted poor farm HH	Income Impact (increase of net income) on smallholder farmers	Income Impact (increase of net income) on smallholder farmers
3. Number of service provider that increase their additional turnover due to AIP Rural interventions	Number of Local service providers (e.g. SMEs) benefited from the intervention	Number of Local service providers (e.g. SMEs) benefited from the intervention
4. Net additional attributable turnover for service providers due to AIP Rural interventions	Turnover impact on local service providers (e.g. SMEs)	Turnover impact on local service providers (e.g. SMEs)
5. Number of innovations introduced by private sector partners	*(Not mentioned)*	Number of innovations introduced by private sector partners
6. Number of initiatives by Gov't to improve the Business Enabling Environment	*(Not mentioned)*	Number of initiatives taken by public sector partners to improve the Business Enabling Environment
7. Number of private and public sector partners	Number of Intervention partners (both private and public sector)	Number of Intervention partners (both private and public sector)
8. Investment value by private sector partners	Volume of Investment by Intervention Partners (both private and public sector) in the joint intervention	Volume of Investment by Intervention Partners (both private and public sector) in the joint intervention

Figure 4: DFAT's Aggregated Development Results (ADR)

DFAT's ADR Indicators	TIRTA comments
1. Number of farmers (total, M and F) adopting innovations	Needed?
2. Number of farmers (total, M and F) with increased net income	Yes (same with KPI no1)
3. Actual value of additional agricultural and fisheries production	Needed?
4. Actual value of partners investment leveraged (in USD)	Yes (Same with KPI No 8)
5. Number of farmers (total, M and F) accessing financial services	Needed?

[4] Note: There is a difference between the set of indicators listed in TIRTA's Design Document (2014) and the Contract between DFAT and the Management Contractor, which need to be reconciled.

[5] Note: TIRTA will verify whether DFAT requires it to report on all five ADR.

4.1. Results Measurement Progress

In early August the team brought on board the MRM manager, who had worked previously on AIP-Governance. Based on the PRISMA MRM manual he developed a preliminary draft MRM manual and explained to the team the use of results chains in designing interventions. In August, the team, facilitated by the MRM Manager developed a first generic TIRTA intervention results chain following the DCED Standard. This was subsequently updated in November to accommodate the revised Log-Frame (See Annex E).

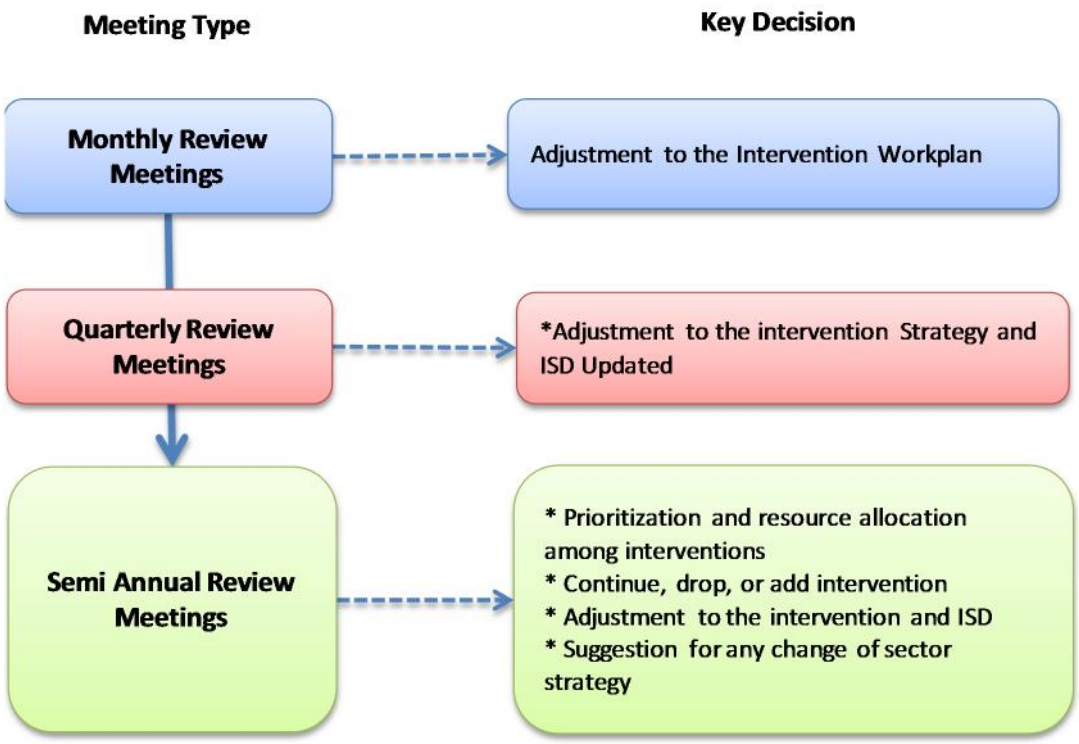
The MRM Manager played a key-role in setting-up the team's two survey stages, including the preparation of questionnaires and the processing of the results. This ensures he is well-informed of the current situation.

In November, the team commenced recruitment of the MRM Coordinator, to start his work in January. In December TIRTA began the recruitment of an STA DCED consultant to work with the team in April and to support them with the development of the system and the finalisation of the manual.

4.2. Results Measurement Strategy to 2018

The MRM System will inform the periodical reviews conducted throughout the programme life-time (see Figure 5). The team envisages to have monthly, quarterly, and semi-annual reviews. Monthly reviews will monitor the progress against the work plan and the work plan will be updated accordingly. The quarterly and semi-annual reviews will reflect on the Intervention Steering Documents (ISD). The MRM reports provide the progress data for inclusion in the semi-annual Progress Report and Implementation Plans.

Figure 5: Review Meetings with MRM Input



Compliance with DCED Standards: The team's MRM system will need to meet the DCED standards in order for the reports it will produce to be recognised as credible. To this end, the team will employ a DCED Consultant to help set the system up and provide annual quality assurance support. The team will also arrange for an "in-place" and an "in-use" DCED audit, as indicated in the project design.

Special studies: Annual impact assessments will be conducted in-house, utilising the survey assistants and, if deemed necessary, additional temporarily engaged and locally recruited enumerators. For special in-depth enquiries, such as program impact on the landless and poorest, and on women and woman-headed farming

households, considering opportunity costs and trade-offs. Appropriate timing would be after two harvest seasons have been completed. The team has selected a young professional – with expertise in research and M&E – who will join in July 2016 for a period of one year. She will play an important role in designing these studies. The team expects to contract the studies out to individual STA.

***Rigorous learning MRM culture**:* MRM will become an increasingly core component of TIRTA operations as the design and implementation of interventions commences. Intervention coordinators who have led the initial surveys, and designed the interventions for the opening portfolio, will also provide the data to feed into the MRM system, as their interventions get off the ground. Critically, a culture of continuous monitoring and improvement of internal processes and practice will also be expected to develop amongst the team, closely aligned to the capacity development approach outlined above.

Accuracy of surveys & satellite imagery: The team's survey found that self-reporting of potential and actually irrigated areas by communities is not always reliable. Intervention designs need to be based on data that have been verified through additional survey work. Social impact surveys will be a component of this but it is likely the team will need to undertake annual mapping exercises to corroborate data. The secretariat provided the TIRTA team with satellite imagery of the area along the Bengawan Solo. There is potential that this could also be used as a baseline to show the amount of expanded irrigated area and could become a powerful MRM tool to provide evidence of TIRTA's impact. However the programme may need to source some external remote sensing services to assist in analysing the imagery and developing such a baseline. One of the options would be ARISA/CSIRO.

MRM Training: In March 2015, prior to mobilisation, the Management Contractor arranged for the Team Leader to take the training course in DCED Standards, conducted in Bangkok. In March 2016, the MRM manager will follow the DCED training in Bangkok.

4.3. Results Measurement Execution in the next 12 Months

Figure 6 presents the MRM Activity Plan for 2016.

Establishing the MRM System: In April, the DCED consultant will come to TIRTA to work with the RM Manager on developing the MRM system and finalising the MRM manual. Later that month, the MRM manager will join the DCED training in Bangkok.

Innovations and application: The team will investigate whether or not it is possible to use satellite imagery to inform the baseline of what land is irrigated or not irrigated. TIRTA will contract a firm to do this for a sample of the GIS imagery and then ground truth the firm's findings. The team will also explore with the secretariat the need for the program to monitor impact on indirect beneficiaries - e.g. input suppliers who through increased access to paddy would deliver improved incomes. A decision on this will shape the final MRM system.

Figure 6: MRM Activity Plan for 2016

No	Activities	2016											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A	***Setting up and Implementation of the MRM System***												
1	DCED Training for RM Manager												
2	MRM System Establishment (MRM Manual Finalised and System established) - Preliminary Draft was developed in Sept 2015.												
3	DCED Consultant's Technical Assistance (Finalize System & Quality Assurance)												
4	Introduction of MRM System (Training Session)												
5	On-going technical supports to program team												
6	DCED "In-Place" Audit												
B	***Intervention Design and Development of MRM Plan (Recurring Process)***												
1	Intervention Design Support (Results Chain and Indicators)												
2	Baseline Study (Design, Data Collection and Reporting)												
3	Intervention Steering Document (ISD) Development												
C	***Monitoring and Results Measurement***												
1	Monitoring Data Collection (Time of monitoring will depend on the maturity of intervention)												
2	Impact Assessment on production and incomes												
3	Special Studies (Gender, Social Inclusion etc)												
D	***Internal Review Meetings***												
1	Monthly Reviews												
2	Quarterly Reviews - ISD Updated												
3	Semi-Annual Reviews - ISD Updated (Same Month with PRIP)												

5. Cross-Cutting Issues

5.1. Gender and Social Inclusion (GESI)

5.1.1. GESI Progress

Background of GESI work done: The MRM Manager, supported by the MRM Coordinator, has led the stakeholder mapping survey, which included gender assessment and social inclusion assessment, such as role and functions of men and women in agriculture; access of poorer farmers, the young or elderly, people with disabilities, and religious/ethnic minority groups to agricultural resources and development opportunities. The results are presented in detail in the Stakeholder Mapping Report.

The TIRTA team's initial work around mainstreaming gender into all their analysis, design and interventions has been supported by a GESI study undertaken at the Secretariat's request in March 2015 by Gillian Brown and colleagues. This paper has formed the basis for TIRTA thinking around GESI issues many of which were challenged and substantiated through the stakeholder mapping process.

Particularly of note was the significant unquantified role women have in farming and the need for TIRTA monitoring to not only be disaggregated by gender, but also to adopt approaches that actively include women such as having separate meetings with women within HIPPAs. The team has been warned for three main pitfalls that have compromised women's empowerment in smallholder agriculture in Indonesia, with as a result the most significant being the burden of unequal distribution of tasks, the absolute lack of free time, and the unquestioned 'triple burden of jobs, childcare and housework':

- Adherence to, or perception of traditional women's roles as secondary support to men
- Ignoring women's unpaid work in the home and community in project design and implementation
- Exclusively or primarily focusing on women as a means to deliver broader economic gains rather than for reasons of gender equality or women's empowerment in their own right

A key realisation for the team has been that whilst fully taking on board the fundamental importance of gender to the program, they currently lack expertise in the development and application of gender and social inclusion strategies. It will be of vital importance to rectify this quickly.

Key Recommendation for GESI

Accurately determining and attributing the increases in the agricultural incomes of "small farmers", therefore needs to start from a perspective that challenges social and gender norms and makes the asset ownership and labour contributions of women visible and valued. To do so, the following steps will be needed:

- The managing contractor's team need a progressive gender responsive approach that challenges social and gender norms. Staff need to be trained to recognise and address the invisibility of women's contribution.
- A gender action plan needs to be prepared with specific time bound actions and targets. The implementation needs to be monitored and regularly reported on.
- Monitoring frameworks need to be designed so that they capture the asset ownership and economic contributions of women, and take into account the complexity of households income and trade-offs in allocation of time. Among the sources that could be used are, for example, village data on land ownership, and improved HIPPA records.
- Panel surveys that include families where women own land, families that rent land, and families where women work as paid farm labourers, would help to understand some of the broader distributional impacts of TIRTA.
- Interventions need to be tailored to take account of the contribution women make to rice production by ensuring their full participation in decision-making, learning programs, and access to inputs. This may involve separate meetings and training for women farmers.
- HIPPA and investors need training and guidance on how to include women in decision-making, and how to encourage them to take up paid opportunities.

Source: Gillian Brown, (Senior Gender Adviser)

5.1.2. GESI Strategy to 2018

Policy and Strategy framework: In May 2015, Australia launched a new strategy within its aid program to strengthen the inclusion of people with disabilities in developing countries. The strategy recognises that everyone is affected if the most disadvantaged people are left behind, and acknowledges that people with disabilities make up one of the largest and most disadvantaged minorities in the world. "Development for All 2015-2020: Strategy for strengthening disability-inclusive development in Australia's aid program" will support people with disabilities in developing countries to find pathways out of poverty and realise their potential. Ensuring that aid investments include people with disability is not only good development practice contributing to poverty reduction, it boosts sustainable economic growth and creates better development outcomes for all. Through the strategy, Australia will continue to help remove physical barriers through its infrastructure investments, and work with partner governments to enhance access to vital services; support disabled people's organisations in developing countries, which play a vital role in giving people with disabilities a voice.

Capacity for mainstreaming gender equality: As mentioned above, the team is not acquainted yet with main streaming gender equality and social inclusion (GESI) in planning, design, and implementation of program activities. Basic staff capacity needs to be established through training and further developed through on-the-job mentoring support. Senior management will have to emphasize the importance of gender and poverty outreach and associated commitments of the program. Thus informed, the team will develop and keep updated a GESI strategy and a practical guide for TIRTA, following its intervention life cycle: Strategy-Diagnosis-Design-Implementation-Monitoring and Results measurement. The team will make use of PRISMA's Gender and Social Inclusion Strategy (Jones, P.S.D., April 2014) and Gender Mainstreaming Guide (latest version available: June 2015).

The team intends to engage an International STA, preferably already acquainted with PRISMA, to lead the preparation of the GESI Strategy development.[6] The team will also recruit specialist support from a university or research centre located as near as possible to the operation area. The specialist will provide the basic training needed; formulate a concept GESI strategy; review the intervention designs and recommend modifications; and take part in monitoring surveys and provide comments. The gender strategy will be continuously updated as TIRTA's understanding of gender dynamics related to irrigation evolve.

Possibly, the strategy will indicate the need for extending capacity building so that all will gain the necessary understanding and capacity necessary to integrate gender and poverty outreach into program planning: co-facilitators, business partners, and service providers.

Adopting GESI practices: TIRTA will adopt many of the lessons learned from PRISMA to ensure that Gender and Social Inclusion considerations are fully integrated into all intervention design and monitoring. Key to informing intervention design, will be the findings of the gender, poverty and landholding studies due to commence in late 2016/early 2017. These studies will be triangulated with the team's existing evidence to identify intervention entry points that ensure TIRTA activity does not only recognise women and excluded groups but that actively targets them as beneficiaries.

Social inclusion & MRM*:* The stakeholder mapping reaffirmed the team's initial thoughts that in practice, women have crucial roles in irrigated agricultural practices, but that these are not counted in official statistics. Critical to recognising the burden and opportunities for women in improved access to Irrigation will be the development of an MRM system that can both disaggregate on the basis of women headed farmer households, and households with members living with disabilities, but that also considers gender dynamics in its approach to data collection. This could include hosting separate focus groups and interviews with groups of women and PWDs.

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6 Preference would be for Mrs Dr Linda Jones.

5.1.3. GESI Execution in the next 12 Months

System and team: In early 2016, the team will prepare the Stakeholder Mapping Report and develop the interventions designs for its opening portfolio. The MRM Manager, supported by the MRM Coordinator, will clear all intervention concept notes, before they are submitted for management approval, to ensure that they meet the compliance criteria. In addition, they will prepare quarterly monitoring reports on portfolio quality and discuss for each intervention the achievement. Among the intervention design aspects, the compliance criteria, and achievement aspects are those pertaining to gender and social inclusion.

A key first step for TIRTA will be the development of its capacity and the formulation of its GESI strategy. TIRTA will seek to leverage PRISMAs existing gender analysis and tools. It will recruit specialist support (see section above) to provide the basic training needed; formulate a concept GESI strategy; review the intervention designs and recommend modifications; and take part in monitoring surveys and provide comments. An introduction to GESI will take place in April/May 2016. This will be followed by a workshop in June/July of the same year.

Application: With its GESI strategy in place, the team will systematically review all intervention designs through a gender and social inclusion lens. This will involve ensuring that results chains account for effects and impact on women and socially excluded groups and that the MRM system is in place in a way that will be able to record this disaggregated information. This integrated activity will be supplemented by the special gender, poverty and landholding studies (see Section 4). The designs of these studies will be informed by insights and questions from the planned June workshop that should provide a lot of the 'big questions' on issues of gender and social inclusion.

5.2. Environment

5.2.1. Environment Progress

Background: The contract requires development of an environmental protection strategy (as part of the Four Year Strategic Plan) to guide the program approach. An overall environmental impact / risk assessment of the program would is needed to provide the basis for the strategy formulation. In September 2015, SRP 5 emphasised the need for this environmental assessment for TIRTA to comply with both Australian and Indonesian laws. Since then the team has been liaising with DFAT Jakarta and has received an offer of assistance from DFAT Canberra's environmental help desk to develop a Terms of Reference for an Environmental Impact Assessment (EIA).

Preparing a Scope of Work for an EIA requires clarity on location, type, and size/volume of activities. For this reason, the team considered it best to complete first (i) the survey to confirm availability of adequate potential for TIRTA interventions and (ii) the stakeholder interviews for gaining sufficient understanding of the environmental issues, and (iii) development of a preliminary set of interventions, as a basis for drafting the scope of work for the EIA in February 2016.

Environmental issues of significance: The EIA team's survey found three environmental issues on the Bengawan Solo: deterioration of the catchment area; pollution by factory-wastewater including heavy metals in the upper basin, and the balancing of water releases from storage against demand during the dry season. The key question is to what extend a TIRTA-generated additional water extraction from the river during the period of lowest flow (August-October), will alter water availability for downstream water uses. Among the various (representatives of) stakeholders to be interviewed were those who are in charge of or in any crucial way relate to the management of the river basin: the Basin Manager, which is the Balai Wilayah Sungai Besar Bengawan Solo (with HQ at Solo), and the Basin Operator, which is the public utility company 'Jasa Tirta 1', also with a basis in Solo. These two are central government agencies, reporting to the Ministry of Public Works Jakarta, and their views really count.

From preliminary communications (e.g. at the Surabaya 10/09 socialisation), the team learned that stakeholders have varying views on river water availability, water rights, and the potential for additional extraction.

The Head of Balai and senior officers visited the team in Surabaya. Key messages were that

1. Government regards pump-lift irrigation as positive because it provides a welcome solution to farmer communities otherwise remaining deprived of conventional irrigation services.

2. The Balai Besar manages and monitors the river's water balance. Any basin stakeholders who want to change their water use need to report this to the Balai Besar. Changes in water demand and their impact on the water balance need to be discussed (and endorsed) by the TKPSDA.

3. The public management of pump-lift irrigation belongs to Kabupaten level. Plans for expansion of pump-lift irrigation should be presented first to the Komisi Irigasi Kabupaten. Subsequently, the Komisi Irigasi can present the desired change in water demand to the TKPSDA.

The December PCC highlighted the critical importance of dry season water availability in the Bengawan Solo to TIRTA. The PCC reiterated the general importance of limiting water diversions and recognised various ways in which TIRTA could contribute to actually reducing such diversions by improving the efficiency of irrigation water use and promotion of irrigated non-paddy crops, such as vegetables and fruit trees.

5.2.2. Environment Strategy to 2018

Principles around environment going forward: Once the EIA and the accompanying Environmental Management Plan are completed, TIRTA will develop its environmental strategy which will guide environmental impact screening for each intervention. Critically until interventions are designed it will be difficult to determine exactly what the impact is so will need continuous re-assessment.

The issue of water as a politicised issue will also need to be continually managed with endorsement from district government for interventions most likely needed and followed with engagement with the Komisi Irigasi Kabupaten and the Balai Besar, to ensure all partners have water access rights.

5.2.3. Environment Execution in the next 12 Months

EIA plan: The delivery of the EIA will be a core priority for the team in the next 12 months. The team will work closely with the DFAT environmental helpdesk to develop a TOR an EIA and this will be followed by a two stage tender process to determine a provider. **The EIA is then due to commence by the end of May.** The team recognise that the EIA findings may restrict or direct some of their activities if the findings are significant. Whilst this is a recognised possibility the team feels confident from its experience and initial surveying that this should not be the case and that the EIA will instead become a useful tool to inform intervention design and environmental risk mitigation going forward.

5.3. Communications

5.3.1. Communications Progress

Low profile in initial stage: In its first six months the team has retained a relatively low profile in terms of presenting itself externally. Upon request from the provincial government DFAT introduced the program and the team to representatives of activity-related provincial and district agencies (meeting of 10/09/2016). Via the PRISMA regional manager, the team provides a monthly update in Indonesian on its activities. AIP Rural is developing a website with 'sub-site' for TIRTA and advised the team to provide content due to come on line in March 2016. When the preliminary designs of interventions have been prepared and it has become clearer what TIRTA can offer to stakeholders, the team will arrange for a district level workshop where it will present the survey results and the proposed targets for intervention, and from then on more communication outputs will be developed. The PPC agreed a formal launching of TIRTA in May 2016, in East Java.

Internal communications: Since mobilisation, the Team Leader has maintained short monthly written updates to the secretariat and DFAT in Jakarta which has proven a useful way for internal stakeholders to maintain connectedness to developments on the program as they evolve. More broadly, informal ad hoc

meetings and brief communications between the Secretariat and the Team Leader have been invaluable in the guiding of program start up and development.

5.3.2. Communications Strategy to 2018

***External**:* AIP-Rural Secretariat has developed seven specific strategies for information sharing and introduction to local governments of the AIP Rural programs. The PRISMA Provincial Managers have been assigned as the focal point for coordination on all communication between the programs and the local governments.

Key to continued positive engagement with stakeholders will be timely and effective delivery of tailored communications in the form of workshops, meetings, or documents. This has already commenced with proper introductions and presentations to government at several levels and adherence to periodical updates on activities. This will need to be expanded to the District level through the development of a TIRTA stakeholder communications strategy, which will include workshops and visits to demonstration units with relevant government representatives, entrepreneurs, and community organisations, and continually updated brochures, hand-outs, and videos.

Internal communications: Internal communications for TIRTA will remain focused on ensuring that DFAT is fully informed of key developments and risks as they emerge both through the secretariat and directly with Jakarta. The monthly updates will continue with special attention paid to finding evidence within TIRTA's activities of outcomes aligned with DFATs Economic Diplomacy, Business Engagement and Women's Economic Empowerment strategies and agenda. Recognising DFAT's appetite for supporting technological innovation, additional attention will be taken to ensure DFAT is informed of any innovations in this sphere.

5.3.3. Communications Execution in the next 12 Months

Building on the wider PRISMA/AIP-Rural communications strategy, the team will develop a short TIRTA-specific sub-strategy. This will be road-tested by ensuring that all intervention designs are aligned to its recommendations and any external communications are shaped by it. The communications strategy will then be regularly updated based on stakeholder and team feedback. One key initial output will be the development of TIRTA presence on the AIP-Rural website, a platform which the team will hope to regular contribute new updates for.

6. Stakeholder Relationship Management

6.1. GOI & Sub-National Agencies

6.1.1. Progress

National level: Of key-importance for the team's first 6 months of operation was the establishment of solid relations with GoI agencies with mandates for agriculture, irrigation, and water resources in its focus area. Aside from the PCC meeting on 01/12/2015 at the Ministry of Public Works/Directorate of Irrigation and Swamps, the program has had positive initial engagements with the head of the River Basin Organisation for Management of the Bengawan Solo River Basin's water resources, the Balai Besar Wilayah Sungai (BBWS) Bengawan Solo, the provincial government, and various district government agencies. The BBWS is a key agency for TIRTA, being the national government agency tasked with protecting and regulating the utilisation of the basin's water resources, including for expansion of irrigation services. In November TIRTA presented its planned approach to the agency and the agency introduced the main features of the basin and its management. It acknowledged that pump-lift irrigation represents a good solution for farmer communities who currently do not have access to irrigation and broadly endorsed TIRTA's approach. TIRTA will increase the demand for water from Bengawan Solo and the BBWS explained the procedures for deciding the basin's water allocation schedule.

Provincial level: As mentioned, the provincial government (SekDa) facilitated the team with making its acquaintance with and introducing its program to representatives of key stakeholder agencies at provincial and district level. This was an extremely important moment, because it opened the path for the team's survey to commence.

District level: At district level, the team visited during its survey various technical government agencies for purpose of collecting data and information. These included: Dinas Pengairan Kabupaten, Dinas Pertanian Kabupaten, Dinas Pengairan Provinsi/Unit Pelaksana Tugas, Jasa Tirta 1/Divisi 4/Unit b. The heads of these agencies are now aware of TIRTA and its interest in expansion of pump-lift irrigation.

The team's communication strategy with government partners is to start with proper formal introductions and consultations in month 1-2, and regular provision of short progress updates in Indonesian, as well as annual workshops and field visit events.

6.1.2. Stakeholder Relationship Management Strategy to 2018

The central elements in the strategy are the introduction of the TIRTA model – with private sector roles in irrigation services at its core element - and receiving/maintaining the government's interest in and support for the program.

At the national level, the BBWS is a very powerful agency. Continued communication with the BBWS should be maintained. Information regarding the projected water demand for the newly covered areas needs to be discussed with BBWS to ensure that TIRTA operates within the existing regulatory framework.

The PRISMA provincial manager will support TIRTA in liaising with provincial and local government. After an initial establishment of coordination, communication, and cooperation mechanisms, facilitated by the PRISMA Provincial Manager, TIRTA will conduct direct communications with the district level agencies.

At the provincial government level, TIRTA's principal relation is with the Provincial SekDa and Bappeda, especially the International and Overseas Cooperation Bureau, overseeing donor programmes and directing government contributions. Relevant technical agencies include Dinas Pertanian and Pengairan, but only to quite a limited extend, because TIRTA's activities are small scale and fall under the district administration's responsibility.

Parallel to the BBWS, the Heads of District (Bupati) are the most powerful officials and the ones who TIRTA needs to approach for championing the expansion of irrigation services with reference to the needed

increase in water allocation. Mobilizing their support would create a highly favourable environment for the program.

Bappeda, the district's planning agency, would be the first entry point for TIRTA. Obtaining the support from Bappeda (Bureau for planning and budgeting) is non-negotiable. Bappeda plays a crucial role in district planning and budgeting and has the authority to coordinate technical agencies such as PU Pengairan, Pertanian and Village Development and Administration Bureau (BPMPD). Coordination with Bappeda should be undertaken in order to share information about TIRTA and for TIRTA to understand and align with district government priorities in irrigation. TIRTA can capitalize on Bappeda's role when there is a need for multi-agency coordination during the implementation of TIRTA's interventions.

Other important district agencies are technical agencies such as PU Pengairan, Dinas Pertanian and BPMPD. The interaction with technical agencies will occur at two levels; agency level and field level. At district level, PU Pengairan plays a significant role in the provision of facilities and infrastructure for gravity irrigation as well as the strengthening of HIPPA capacity, including for pump-lift irrigation schemes. Dinas Pertanian is responsible for providing community scheme irrigation facilities and infrastructure, as support to agriculture. TIRTA will collaborate with these two agencies, seeking strategic alignment with some of the programs they are currently implementing such as pump distribution and the new insurance program covering harvest failure.

All the relevant government agencies have their field staff present at the village or kecamatan level. Bappeda has temporary staff at villages with a BUMDes. PU Pengairan has "mantri pengairan" and Dinas Pertanian is present with its extension staff (Petugas Penyuluh Lapangan). These officers can be involved during the preparation of village expansion and investment plans or during the capacity building process for the farmers and their organisations.

At the village level, Kepala desa is the entry point before any discussion with the farmers and the community organisations can be held. Plans for expanding irrigation services will not be successful without support from the Kepala Desa. His capacity in community organising and as the budget holder for village funds are two qualities that TIRTA can capitalise on for the expansion of irrigation service in the villages. There are some caveats that the TIRTA team should be aware of, particularly if the village heads are also active as irrigation service providers. They may not necessarily support TIRTA's existing strategy to have irrigation services fully managed by community organisations (HIPPA/BUMDES). Other than Kepala Desa, the subdistrict head, Camat, also plays an equally crucial part particularly for the irrigation service across village boundaries. Camat is the point of coordination among villages. Although village heads do not report to subdistrict heads, the Camat represents the Bupati as a coordinator and therefore garners respect from the village heads and therefore can facilitate negotiation among the villages and can help link the villages with district technical agencies.

6.1.3. Stakeholder Relationship Management Execution in the next 12 Months

Following-up to the government's request for periodical updating in respect of program activities, TIRTA will monthly provide a brief activity report in Indonesian to the PRISMA Provincial Manager, for submission to the relevant provincial and district level agencies.

Having completed the survey (during which the team has made contact with representatives of most of the stakeholders) and prepared the Stakeholder Mapping Report, the team will compose an opening port-folio of interventions, set targets, identify what is needed in the field to make expansion happen, and formulate its offer. The time has then come for the team to present to the stakeholders its survey findings, its rationale for action (includes selection/participation/priority criteria), and its opening port-folio. The team will seek the government's endorsement of its opening-portfolio and agreement on liaison and communication arrangements.

The team will seek to engage government in learning opportunities that interventions offer, such as (i) a review of strengths and weaknesses of various management arrangements, comparing large and small entrepreneur/investor-, HIPPA-, BUMDes-, and Kelompok Tani-managed schemes; and (ii) appropriate design of pump-station configurations and pipelines.

TIRTA will provide capacity building for government, focusing on introducing M4P and the TIRTA model. For each stakeholder group, focused explanatory and promotional videos and brochures will be produced. Demonstration units will be used to bring potential/interested stakeholders and partners in touch with peers and learn from good and not so good practices.

In May 2016 – as decided in the PPC Meeting of 01/12/2015 – the formal launching of TIRTA will take place in East Java. This will be a good moment to refresh the understanding of all stakeholders of TIRTA and of the potential of private sector investment in irrigation services.

6.2. Private sector partners

6.2.1. Stakeholder Relationship Management Progress

The survey covered 174 villages situated on the river and registered 279 pump stations serving around 22,000 ha of paddy fields and found that with very few exceptions, the pump-lift irrigation schemes along the Lower Bengawan Solo have been established with private sector investment and are managed by private sector entities. The irrigation service providers are either small-holder community organisations such as HIPPA, BUMDes, or Kelompok Tani, or Entrepreneur/investors. Community organisation-provided services are slightly fewer in number of pump stations (total 123; HIPPA manage 101 stations, BUMDES 10, Kelompok Tani 12), but cover a much larger area (12,868 ha) than entrepreneur/investor - provided services (131 pump stations; 7,410 ha). In Bojonegoro by far most service providers are entrepreneurs/investors. In Tuban and Lamongan they are rare nowadays. Sixty six villages reported potential for expansion.

Through the survey, the team engaged with (representatives of) the village leaders, the community organisations, the entrepreneur/investors. The team intensively visited and communicated with the service providers and communities of the most promising potential expansion blocks. These discussions were for purpose of collecting data and information for developing initial ideas for interventions.

6.2.2. Stakeholder Relationship Management Strategy to 2018

Stakeholders participating directly in interventions: A key element of the team's strategy for engagement with irrigation services providers and with communities in desiring irrigation services is the need to prevent raising expectations of direct program contributions to the infrastructure investment for expansion of services. A second element is the need for cross-checking information. Service providers and service receivers are likely to have different views on a number of aspects. It is important that agreements on service provision and fee payment between the two will reflect the features of the wider market environment. Where customer communities have no experience yet with irrigation service providers, the program could facilitate development of confidence through discussions and visits to nearby irrigation schemes.

The survey found that large entrepreneur/investors – commonly serving several hundreds of hectares under a score of service agreements – are generally interested in opportunities to expand their business; have no problem in serving across desa borders; have no problems in obtaining the financial resources for investment and operation; and are capable of managing their business. Small entrepreneur/investors tend to prefer limiting their business to their own village; have limited own resources for investment and no access to financing services. Community organisations have commonly great difficulty in managing their organisation; have no access to financing services; but are more liked by their members and the government than entrepreneurs are. It is the communities and their organisations who actually 'hold the land' where potential for expansion is. Given their initial weakness, they rely and engaging entrepreneur/investors for establishing the irrigation service. Facilitating this process will be one of the intervention activities.

A particular variant on this are communities further away from the river and depending on the willingness of a neighbouring community organisation with a pump-station to expand and provide cross-desa border services. In such cases, working out a service agreement is not as straight forward as between with an entrepreneur/investor, because a range of social and local-political factors plays a role.

Stakeholders engaged as partners in intervention activities: The team expects that interventions will engage other private sector partners, such as one or more business development services; financial services

organisations, pump- and pipe-technology providers; and agriculture technology providers. The engagements would aim at (i) successful completion of our scheme-focused interventions, and (ii) enriching the irrigation services market with these secondary services, thereby supporting the replication process. The team will give preference to engaging partners already active in the Lower Bengawan Solo area.

Stakeholders not directly participating in interventions: In addition, early interventions will serve as demonstration sites and the team will facilitate 'study visits' by providers and customers, providing them with examples and new ideas for realising the expansion of services they look for.

6.2.3. Stakeholder Relationship Management Execution in the next 12 Months

Stakeholders participating directly in interventions: In January-March The team will select the expansion blocks for its opening portfolio, prepare the intervention designs, thereby frequently visiting the targeted schemes and meeting the stakeholders for collecting and verifying data and information. The team will for each intervention carefully identify and assess the incentives the various stakeholders have for expanding the irrigation service. In March-June the team will engage them in a facilitation process for helping them reach decisions on all aspects of the investment and of the subsequent services provision arrangement. The team will also facilitate finding solutions for improving organisational management and business planning; obtaining investment financing, acquiring efficient pump and conveyance technology, acquiring appropriate agro-technology, and finding markets for produce. Each intervention will develop its own approach and see a tailored series of meetings with entrepreneur investors and leading representatives of communities and their members. Some of these meetings will have a training character.

Stakeholders engaged as partners in intervention activities: The team will engage several partners for providing inputs to the intervention process. Each engagement will see an escalation from an initial short visit and study report, via a more comprehensive input, to a larger contract with a range of services. The team will seek partners who are interested in investing. For example, the team will engage one or more pump-producers in assessing the current efficiency of a selection of pump-stations and if this works well, engage them for providing a training and demonstration of how pumping costs can be reduced by using better equipment and proper installing it.

Stakeholders not directly participating in interventions: Where trainings and demonstrations are suitable for this, the team will invite representatives of communities and services providers to attend.

7. Operations & Finance

7.1. Operations

7.1.1. Operations Progress

Office and mobilisation of team: Leveraging existing PRISMA/Palladium operations in Surabaya and Jakarta the team made a rapid start up in July, starting work in the AIP-Rural office within one week of contract signature. The Deputy Team Leader and the two Intervention Coordinators moved to Bojonegoro Town on 12/08, where they operated from a provisional office. In early September/October, a small office was set up, and since 07/10 in operation, accommodating the majority of the team. The Team Leader (TL) mobilised on 08/07, the core team on 22/07, and the Operations and Finance Manager on 03/08.

The Bojonegoro-based team was in December strengthened with a Finance and Admin Officer and a third Intervention Coordinator who commenced work in December and added valuable technical expertise to the team. In September, the team recruited on short-term basis ten young local graduates - most in economics, one in civil engineering - to work on survey stage 1, and provide the team with practical insights into the operation area. In November, the team contracted again six of the ten for work on stage 2 of the survey.

Operations management: The AIP-Rural Secretariat undertook a comprehensive operations systems review. This review resulted in a cross-program agreement between PRISMA and TIRTA to share resources during periods of peak workload. Critically whilst this agreement in place, it is recognised that there remains tweaks to TIRTAs operations set up that will need be addressed in advance of the team being ready to effectively manage deals and partnership agreements.

Deliverables: The list of deliverables is in Annex D. To-date, the team submitted the following reports:

1) Updated Mobilisation Plan
2) Fraud Risk Assessment/Fraud Control Strategy
3) Program Operations Manual
4) Report on Stakeholder Mapping, including the Desktop Study/Potential Irrigation Sites

7.1.2. Operations Strategy to 2018

Deal making process & overall operations: Recognising lessons learned from PRISMA, key to the successful delivery of TIRTA will be ensuring continuous communication between the operations and finance team and the technical delivery team. The AIP-Rural systems review laid a framework for this to happen in an efficient and effective way, but a key step for TIRTA in realising effective operations/ technical coordination will be ensuring that the operations team are fully across initial partnership deals and that outcomes are not jeopardised due to the two parts of the program not working effectively in tandem.

7.1.3. Operations Execution in the next 12 Months

Effective operations program support: TIRTA scored well overall in the PPA. Lowest scores were in three areas:

1) PPA sub-criterion 2b: “Delivers defined services within budget (predicted budgets compare well to actual expenditure)”. The comment received was: “Budget forecasting remains a challenge for the team given the unpredictable nature of M4P programmes during the start-up phase.”

In response, the team will be focusing on improving budget forecasting for interventions accordingly.

2) PPA sub-criterion 4a: “Partner takes appropriate account of DFAT policies including on Child protection, Environmental and Resettlement safeguards, Gender Equality and Disability Inclusive Development”. The comment referred to TIRTA’s difficulties in finalising work on the environmental impact framework and need to strengthen gender analysis and how it translates into planning, actions, and reporting (e.g. in the Stakeholder Mapping).

The team started its work on the Environmental Impact Framework after completion of the surveys had confirmed the potential for TIRTA; had generated information on the environmental issues of relevance; and had provided a better insight into the actions that will be undertaken in response to TIRTA’s interventions.

Reference is made to **Section 5.1** in regard of strengthening of the gender analysis and how to translate this into intervention planning and implementation and to **Section 5.2** for a description of the current status and the actions planned in regard of the EIA and to.

3) PPA sub-criterion 5a: Recruitment and management of staff is conducted in a timely and professional manner and DFAT has been alerted to any recruitment/staffing issues.

The team acknowledges that pressures of team capacity building alongside market analysis and intervention design – as well as divisions of labour of the Team Leader between Surabaya and Bojonegoro – meant that the two key reports were delivered after the deadline to DFAT. Future deliverables of this nature will be on time now that the team and leadership are well established. In addition, efforts will be made in developing efficient report-writing mechanisms and building human capacity around it.

The team: The TIRTA team is expected to continue to grow organically over the next 12 month with additional intervention coordinators and administrative staff being brought in on a needs basis. The selection process for the Results Measurement Coordinator was completed and the selected candidate will take up his position on 1st of February. Building on the experience of PRISMA, a Young Professional from Palladium will join the team in June/July for a period of one year, and work primarily on MRM tasks, particularly the special studies. One key potential deviation from this plan would be warranted if scale up to other locations was considered viable.

Security: TIRTA, under PRISMA, implements a safety and security plan from Palladium. A security provider, Hills & Associate, delivers security information via text messages and emails, which is distributed by Palladium to PRISMA Security Point of Contact along with TIRTA Security Point of Contact in Surabaya. This chain of information will then distributed via a WhatsApp Group consist of TIRTA staff in Surabaya and Bojonegoro. TIRTA has 2 Security Point of Contact, one in Surabaya office and one in Bojonegoro office. For any incidents that happen, staff will report this to PRISMA Security Point of Contact, who will escalate this to Palladium Director Security in Dubai.

The premises selected for the team’ office in Bojonegoro are on a main road but in a quiet and generally safe neighbourhood.

One of the secondary considerations for basing the team in Bojonegoro was to minimise travel from Surabaya to Bojonegoro and vice versa. Traffic accidents frequently occur on the road section between Surabaya and Babat. One of the risks for the team is getting involved in such an accident. Now, for most of the remaining travel between Surabaya and Bojonegoro, the team uses the train. Trains are quicker and a safer mode of transport than cars, while passengers feel less tired after the trip.

For local transport, the team uses (rented) motorcycles. Care has been taken that all are acquainted to handling a motorbike; have and actually wear helmets; and have valid licenses. This mode of transport is used for effectiveness since many pump-station sites are not accessible for cars and inter-village connections via unpaved roads are much shorter than over the paved road network. For long distance travel, though, the team uses cars for reasons of safety. First aid kits will be provided for staff who travels with cars and motorcycles.

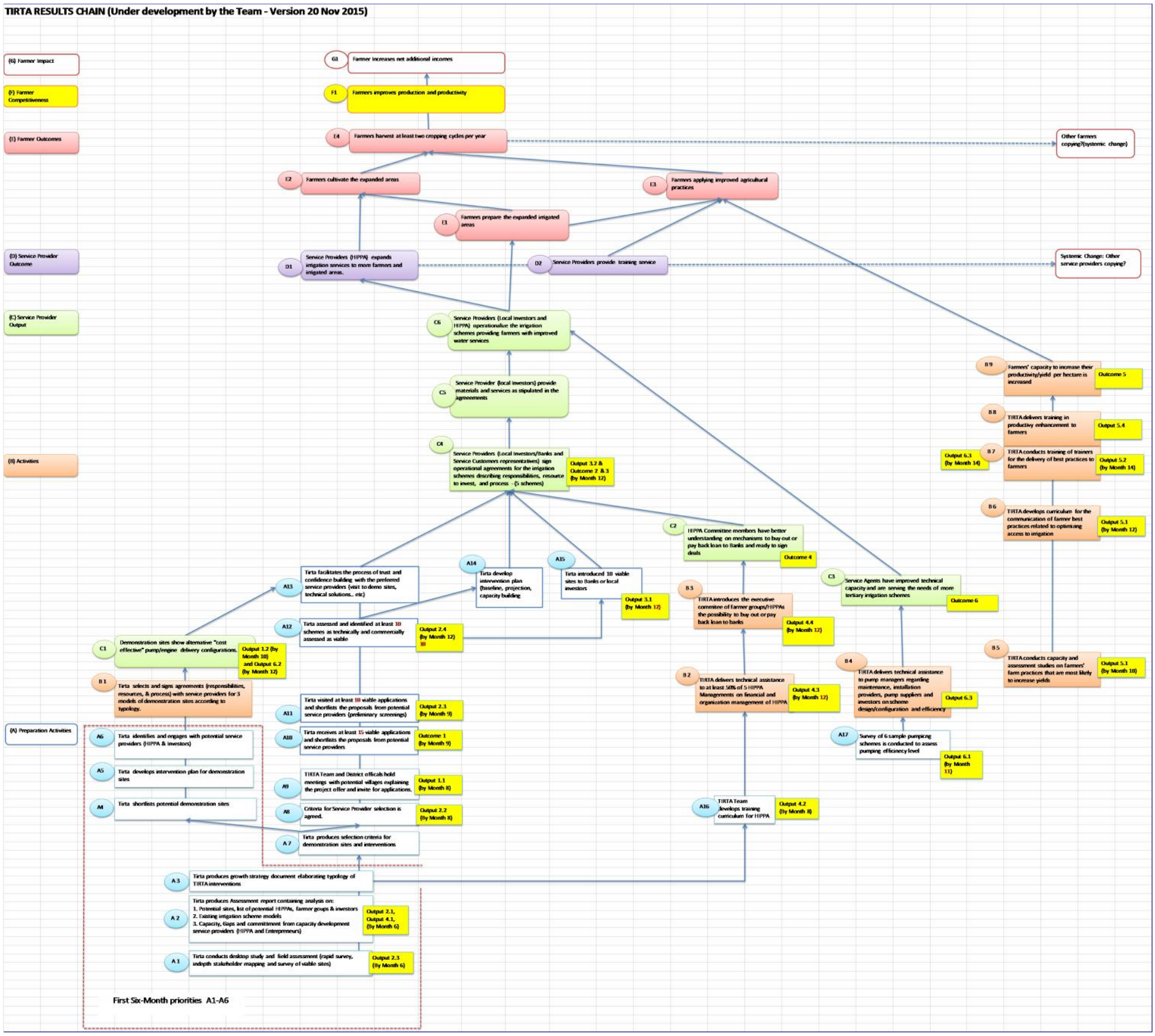
ANNEX A: Map of the Bengawan Solo River Basin

ANNEX B: List of Potential Expansion Blocks in Bojonegoro District

(Reports as received from Desa/HIPPA leaders by the TIRTA team during the September - October Survey)

Desa ID No	District/ Kabupaten	Sub-district/ Kecamatan	Village/ Desa	Current irrigation services provider	Tipe lembaga	Potential perluasan irigasi?	Potential reported (ha)	Across desa bound-aries?
66	Bojonegoro	Malo	Kliteh	Kelompok Tani	1	Ya	700	No
24	Bojonegoro	Kanor	Gedongarum	HIPPA & BUMDes	1	Ya	500	No
43	Bojonegoro	Kalitidu	Leran	Kelompok Tani	1	Ya	450	No
29	Bojonegoro	Kalitidu	Cengungklung	HIPPA	1	Ya	250	No
25	Bojonegoro	Kanor	Kedungprimpen	BUMDes	1	Ya	225	Yes
87	Bojonegoro	Ngraho	Jumok	(sawah tidak beririgasi)	0	Ya	160	Yes
46	Bojonegoro	Dander	Ngulanan	HIPPA	1	Ya	150	No
47	Bojonegoro	Kapas	Bakalan	Kelompok Tani	1	Ya	150	No
42	Bojonegoro	Kalitidu	Beged	Kelompok Tani	1	Ya	120	No
31	Bojonegoro	Kalitidu	Sumengko	Kelompok Tani	1	Ya	100	No
32	Bojonegoro	Kalitidu	Mlaten	Pengusaha Areal	2	Ya	100	Yes
44	Bojonegoro	Kalitidu	Sukoharjo	Kelompok Tani	1	Ya	100	No
63	Bojonegoro	Malo	Kacangan	Kelompok Tani	1	ya	100	Yes
5	Bojonegoro	Baureno	Kalisari	HIPPA	1	Ya	85	Yes
81	Bojonegoro	Padangan	Ngoken	HIPPA	1	Ya	80	No
51	Bojonegoro	Trucuk	Kanten	Kelompok Tani	1	Ya	70	No
76	Bojonegoro	Padangan	Kuncen	Kelompok Tani	1	Ya	70	No
77	Bojonegoro	Padangan	Banjarjo	HIPPA	1	Ya	70	Yes
67	Bojonegoro	Malo	Sudah	Kelompok Tani	1	Ya	60	No
84	Bojonegoro	Purwosari	Purwosari	HIPPA	1	Ya	60	No
88	Bojonegoro	Ngraho	Luwihaji	Pengusaha Areal	2	Ya	60	No
45	Bojonegoro	Dander	Ngablak	Pengusaha Areal	2	Ya	55	No
3	Bojonegoro	Baureno	Pucangarum	HIPPA	1	Ya	50	Yes
36	Bojonegoro	Kalitidu	Mayangrejo	Kelompok Tani	1	Ya	50	No
50	Bojonegoro	Kasiman	Tembeling	Kelompok Tani	1	Ya	50	Yes
83	Bojonegoro	Padangan	Kendung	HIPPA	1	Ya	50	No
57	Bojonegoro	Trucuk	Guyangan	HIPPA	1	Ya	40	No
68	Bojonegoro	Malo	Rendeng	Kelompok Tani	1	Ya	20	Yes
85	Bojonegoro	Ngraho	Payaman	HIPPA	1	Ya	20	No
13	Bojonegoro	Bojonegoro	Mulyoagung	Hippa	1	Ya	15	Yes
58	Bojonegoro	Trucuk	Trucuk	Kelompok Tani	1	Ya	15	Yes
12	Bojonegoro	Bojonegoro	Campurjo	HIPPA & Kel.tani	1	Ya	10	No
35	Bojonegoro	Kalitidu	Panjunan	Pengusaha	2	Ya	10	No
59	Bojonegoro	Trucuk	Tulungrejo	Kelompok Tani	1	Ya	10	No
69	Bojonegoro	Malo	Malo	Kelompok Tani	1	Ya	10	Yes
75	Bojonegoro	Padangan	Kebonagung	HIPPA & Pengusaha Areal	3	Ya	10	No
78	Bojonegoro	Padangan	Sidorejo	HIPPA	1	Ya	10	No
82	Bojonegoro	Padangan	Tebon	HIPPA	1	Ya	10	Yes
33	Bojonegoro	Kalitidu	Talok	Gapoktan	1	Ya	6	No
TOTAL:							**4,101**	**ha**

Annex C: Program Results Chain



Annex D: List of Milestones and Reports

TIRTA Updated Milestone Dates and Additional Reports

Updated 17 March 2016

No	Type of Deliverables	Submission Deadline	Contract Clause	Notes from Head Contract	Status	Remarks
1	Mobilisation Plan	22-Aug-15	Schedule 1, Clause 10.2	Details on report requirement on Head Contract, Schedule 1, Clause 11.2 (page 77)	Invoiced	Milestone
2	Fraud Risk Assessment / Fraud Control Strategy	22-Aug-15	Part 2, Clause 27.2	Within 1 month of the project start date, the contractor must conduct a fraud risk assessment and produce a fraud control strategy in compliance with the Commonwealth Fraud Control Guidelines. It must contain appropriate fraud prevention, detection, investigation and reporting processes and procedures.	Submitted	Non milestone
3	Program Operations Manual	22-Oct-15	Schedule 1, Clause 11.4	To be submitted to DFAT for approval within 3 months after commencement date. POM must include brief overview of the program and its operationalisation, the main principles, requirements, and procedures for personnel management, administration, accounting and finance management, procurement management, and compliance. Details on report requirements on Head Contract, Schedule 1, Clause 11.4 (page 78)	Invoiced	Milestone
4	Desktop Study (GIS/Satellite Images) on Potential Irrigation Sites	Within 3 months after commencement date	Schedule 1, Clause 11.3	Submitted to the PD-Rural for approval within 3 months after the commencement date, that includes overall environmental impact/risk assessment of the program. The EIA will provide the basis to develop the environment strategy part of the Four Year Strategic Plan report and address the risks identified in the risk matrix.		Non milestone
5	Gender & Social Inclusion Study	Within the first 6 months of the implementation	Schedule 1, Clause 4.11	DFAT will commission the development of a practical set of "gender inclusion" practices as reference for TIRTA interventions. It will also include a terms of reference for a study to fill the gaps of TIRTA's practical understanding of the Gender and Social Inclusion (GSI) issues in tertiary irrigation, the Contractor will mobilise the study within the first 6 months of the implementation.	A preliminary report by Gillian Brown was available in April 15	Non milestone
6	Report on Stakeholder Mapping - East Java	22 Jan 16	Schedule 1, Clause 11.5	Identifies and assesses potential WUAs, farmer groups, and local investors to help in the formulation of initial scheme selection criteria. The assessment should also include a gender assessment (eg role and functions of men and women in agriculture, barriers to their participation in the interventions) and a social inclusion assessment (eg access of poorer farmers, the young or elderly, people with disabilities, and religious/ethnic minority groups to agricultural resources and development opportunities). The report must be submitted to the PD-Rural for approval within: - 6 months after commencement date for East Java - 18 months after commencement date for NTB and NTT - 36 months after commencement date for Papua and West Papua	Submitted	Milestone
7	Progress Report and Implementation Plan (PRIP) and Risk Matrix	23 Mar 16	PRIP: Schedule 1, Clause 11.6 Risk Matrix: Schedule 1, Clause 9.2	The planning part of PRIP is applying a rolling planning method with one-year outlook and is updated every 6 months, while the reporting part covers specifically the preceding 6 months. PRIP consist of 2 separate documents parts: - Program Implementation Part; executive summary, overall program, portfolio management and monitoring, status of KPIs, status of irrigation portfolios and key progresses in the last 6 months, results measurement and learning, key activities and relationship with stakeholders, management of cross-cutting program aspects - Operations and Finance Part; financial management, personnel management, office management, and other relevant issues The contractor will provide an update risk matrix annually (initially based on the PDD Risk Matrix and updated annually) as part of the progress report and implementation plan. Details on report requirement on Head Contract, Schedule 1, Clause 11.7 (page 79-80)	In progress	Milestone

No	Type of Deliverables	Submission Deadline	Contract Clause	Notes from Head Contract	Status	Remarks
8	Four-Year Strategic Plan	23 Mar 16	Schedule 1, Clause 11.8	Submitted to the PD-Rural for approval within 8 months after commencement date. This document will be updated regularly and used as a basis for the semester and annual PRIP. This deliverables include: - Projection of performance targets and required resources; overall and yearly breakdown of performance targets, projections of interventions and locations, projections of program personnel and STAs, and budget projections - Strategies for cross-cutting program aspects; gender and social inclusion strategy, environment strategy, communication strategy, risk management plan, and security plan. Details on report requirement on Head Contract, Schedule 1, Clause 11.8 (page 80-81)	In progress	Milestone
9	Monitoring & Results Measurement Manual	24 Jun 16	Schedule 1, Clause 11.9	Will be provided within 12 months after commencement date. This will be a regularly updated document, encompassing the principle of continuous quality enhancement, and will take into account any decisions by or recommendations of DFAT.		Milestone
10	Handover Plan	Within 12 months of the project date - Jul 16	Part 7, Clause 59.1	Within 12 months of the project start date draft and provide to DFAT a copy of Handover Plan which includes all the functions to be performed to hand over Contract Material, Supplies, information, documents, and other materials to the Partner Country (or to DFAT where Goods and/or Services are provided in Australia). Update it as necessary during the project but at least annually and 6 months before the end of the contract		Non milestone
11	Progress Report and Implementation Plan (PRIP) and Risk Matrix	24 Aug 16	PRIP: Schedule 1, Clause 11.6 Risk Matrix: Schedule 1, Clause 9.2	The planning part of PRIP is applying a rolling planning method with one-year outlook and is updated every 6 months, while the reporting part covers specifically the preceding 6 months. PRIP consist of 2 separate documents parts: - Program Implementation Part; executive summary, overall program, portfolio management and monitoring, status of KPIs, status of irrigation portfolios and key progresses in the last 6 months, results measurement and learning, key activities and relationship with stakeholders, management of cross-cutting program aspects - Operations and Finance Part; financial management, personnel management, office management, and other relevant issues The contractor will provide an update risk matrix annually (initially based on the PDD Risk Matrix and updated annually) as part of the progress report and implementation plan. Details on report requirement on Head Contract, Schedule 1, Clause 11.7 (page 79-80)		Milestone
12	Report on Stakeholder Mapping - NTB & NTT	18 months after commencement date - approximately on Jan 17	Schedule 1, Clause 11.5	Identifies and assesses potential WUAs, farmer groups, and local investors to help in the formulation of initial scheme selection criteria. The assessment should also include a gender assessment (eg role and functions of men and women in agriculture, barriers to their participation in the interventions) and a social inclusion assessment (eg access of poorer farmers, the young or elderly, people with disabilities, and religious/ethnic minority groups to agricultural resources and development opportunities). The report must be submitted to the PD-Rural for approval within: - 6 months after commencement date for East Java - 18 months after commencement date for NTB and NTT - 36 months after commencement date for Papua and West Papua		Non milestone

No	Type of Deliverables	Submission Deadline	Contract Clause	Notes from Head Contract	Status	Remarks
13	Progress Report and Implementation Plan (PRIP) and Risk Matrix	24 Feb 17	PRIP: Schedule 1, Clause 11.6 Risk Matrix: Schedule 1, Clause 9.2	The planning part of PRIP is applying a rolling planning method with one-year outlook and is updated every 6 months, while the reporting part covers specifically the preceding 6 months. PRIP consist of 2 separate documents parts: - Program Implementation Part; executive summary, overall program, portfolio management and monitoring, status of KPIs, status of irrigation portfolios and key progresses in the last 6 months, results measurement and learning, key activities and relationship with stakeholders, management of cross-cutting program aspects - Operations and Finance Part; financial management, personnel management, office management, and other relevant issues The contractor will provide an update risk matrix annually (initially based on the PDD Risk Matrix and updated annually) as part of the progress report and implementation plan. Details on report requirement on Head Contract, Schedule 1, Clause 11.7 (page 79-80)		Milestone
14	Handover Plan	Within 12 months of the project date, updated at least annually - Jul 17	Part 7, Clause 59.1	Within 12 months of the project start date draft and provide to DFAT a copy of Handover Plan which includes all the functions to be performed to hand over Contract Material, Supplies, information, documents, and other materials to the Partner Country (or to DFAT where Goods and/or Services are provided in Australia). Update it as necessary during the project but at least annually and 6 months before the end of the contract		Non milestone
15	Progress Report and Implementation Plan (PRIP) and Risk Matrix	24 Feb 18	PRIP:Schedule 1, Clause 11.6Risk Matrix:Schedule 1, Clause 9.2	The planning part of PRIP is applying a rolling planning method with one-year outlook and is updated every 6 months, while the reporting part covers specifically the preceding 6 months. PRIP consist of 2 separate documents parts:- Program Implementation Part; executive summary, overall program, portfolio management and monitoring, status of KPIs, status of irrigation portfolios and key progresses in the last 6 months, results measurement and learning, key activities and relationship with stakeholders, management of cross-cutting program aspects- Operations and Finance Part; financial management, personnel management, office management, and other relevant issuesThe contractor will provide an update risk matrix annually (initially based on the PDD Risk Matrix and updated annually) as part of the progress report and implementation plan. Details on report requirement on Head Contract, Schedule 1, Clause 11.7 (page 79-80)		Milestone
16	Report on Stakeholder Mapping - Papua & West Papua	36 months after commencement date - approximately Jul 18	PRIP: Schedule 1, Clause 11.6 Risk Matrix: Schedule 1, Clause 9.2	Identifies and assesses potential WUAs, farmer groups, and local investors to help in the formulation of initial scheme selection criteria. The assessment should also include a gender assessment (eg role and functions of men and women in agriculture, barriers to their participation in the interventions) and a social inclusion assessment (eg access of poorer farmers, the young or elderly, people with disabilities, and religious/ethnic minority groups to agricultural resources and development opportunities). The report must be submitted to the PD-Rural for approval within: - 6 months after commencement date for East Java - 18 months after commencement date for NTB and NTT - 36 months after commencement date for Papua and West Papua		Non milestone
17	Handover Plan	Within 12 months of the project date, updated at least annually - Jul 18	Part 7, Clause 59.1	Within 12 months of the project start date draft and provide to DFAT a copy of Handover Plan which includes all the functions to be performed to hand over Contract Material, Supplies, information, documents, and other materials to the Partner Country (or to DFAT where Goods and/or Services are provided in Australia). Update it as necessary during the project but at least annually and 6 months before the end of the contract		Non milestone
18	Activity Completion Report	30 Sep 18	Schedule 1, Clause 11.10	Will be submitted at least 3 months before the end of the program. It will include reference to any independent reviews conducted during the program, and analyse program strengths and weaknesses.		Milestone
19	Communication Plan		Schedule 1, Clause 10.8.e	Develop and implement a clear public communication plan, including a web-based portal, as a part of AIP-Rural, that focuses on the information needs of different stakeholders and which supports transparency objectives.	Website AIP-Rural is in progress	Non milestone

TIRTA Updated Review Dates

Updated 17 March 2016

No	Type of Review	Commencement Date	Contract Clause	Notes from Head Contract	Status	Remarks
PPA	Partner Performance Assesssment (PPA)	Feb-16	Schedule 1, Clause 12.1	The assessment of the Contractor's performance will be made on a six (6)-monthly basis. The performance assessment will be carried out by DFAT and the PD-Rural in consultation with the Senior Adviser Rural Development. Other parties that may be consulted regarding the performance of the Contractor may include local stakeholders, relevant counterparts and representatives of the GoI.	Done	Non milestone
		Aug-16				Milestone
		Feb-17				Non milestone
		Aug-17				Milestone
		Feb-18				Non milestone
		Aug-18				Milestone
OOPI	Targets agreed for Outcome Oriented Performance Incentives	Sep-16	Schedule 1, Clause 14	The incentive-outcome payment will be made on an annual basis with the first assessment being held 12 months after targets to be eligible for this bonus payment are mutually agreed by Contractor and AIP-Rural Secretariat on behalf of DFAT. The assessment will be carried out by the PD-Rural in consultation with DFAT. The indicative criteria to be used to assess the Contractor's performance in delivering the required services and the results will be mutually agreed by the Contractor and the AIP-Rural Secretariat, on behalf of DFAT. Based on Schedule 2, Clause 3.1.b Starting from month 7 of the contract, the Contractor will need to revise and adjust the Logframe for TIRTA (clause 7.9 Schedule 1) to reflect more accurately the feasibility and timing of logframe achievement up to year 4. Based on the revised Logframes, Four Year Strategic Plan as well as the Annual and Semester Progress Report and Implementation Plan (submission date 23 Mar 16); DFAT and the Contractor will discuss and agree on (i) the definition of the performance indicators (ii) the measurement method of the performance indicators (iii) the timing for the review/assessment Detailed on Schedule 2, Clause 3.1.b page 256-257		Revised timeline - milestone
		Sep-17				Revised timeline - milestone
		Sep-18				Revised timeline - milestone
External Reviews						
SRP	Strategic Review Panel	24-Sep-15	Schedule 1, Clause 6.5	SRP is an independent advisory group comprising 2 senior experts in the field of market systems development, rural development, agriculture and public private partnerships. Their function will be to provide strategic advice to the Program on how to maximise its impact. This group will be enged by DFAt, report to the Director DRMRD, and conduct missions of approximately one week, twice a year, in Indonesia.	Done	Non milestone
		13 - 18 Mar 16			Done	Non milestone
		Sep 16*				Non milestone
		Mar 17*				Non milestone
		Sep 17*				Non milestone
		Mar 18*				Non milestone
		Sep 18*				Non milestone
Midterm Review	Midterm Review	19-30 Sep 16				

Note: (*) dates are still tentative

Annex E: TIRTA Logical Framework as flowchart