

# Women and Agriculture in Aceh, Indonesia



## Needs assessment for the BPTP and ACIAR 'Women Farmer Groups' project January 2011

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# 1. Background

## 1.1. About the KWT Project

Balai Pengkajian Teknologi Pertanian NAD (BPTP) is the delivery partner in an Australian Centre for International Agricultural Research (ACIAR) project working to restore agricultural livelihoods in Aceh. The other partners are Industry & Investment NSW, the Indonesian Legumes and Tuber Crops Research Institute and the Indonesian Soils Research Institute.

The Kelompok Wanita Tani (KWT) component of the ACIAR project focuses on establishing and supporting women's farming groups, or KWTs. Each KWT consists of 10-25 women working together to grow vegetables on shared plots and in home gardens. Produce is generally sold to traders or consumed in the home; each group manages its own income from sales, with some of the profits distributed among members and some invested back into the group's activities.

BPTP provides start-up support for new KWTs, which can include technical advice about crops and cultivation, operational advice regarding group structure and function, capacity building opportunities such as 'farmer-to-farmer' visits (field trips to visit other KWTs), linking groups with local government extension staff (PPL), and limited financial support for purchasing seeds and equipment. Groups then go on to manage themselves, with the goal of achieving financial sustainability and independence.

At present there are 17 active KWTs operating in four of Aceh's 15 regions, as shown in Table 1. Some of these are already independent, while others still receive support from BPTP.

### 1.1.1. Existing KWTs as of Dec 2010

	Name	Location	Number members	Year established	Status
1	Harapan Maju (New Hope)	Lhok Awe-Awe, BIREUEN	20	2009	Active
2	Tunas Mekar (Blooming bud)	Cot Buloh, ACEH BARAT	10	2009	Active
3	Mawar (Rose)	Meunasah Dayah Husen, PIDIE JAYA	21	2009	Inactive – members focusing on flood recovery
4	Ingin Maju (Moving Forward)	Lameu Raya, PIDIE	44	2009	Active
5	Semangat Baru (New Sprit)	Lipah Rayeuk, BIREUEN	50	2010	Active
6	Mekar Jaya (Great Blooming)	Tanjong Ni, BIREUEN	50	2010	Active
7	Kembang Panjoe (Panjoe Blossom)	Blang Panjoe, BIREUEN	20	2010	Active

8	Tunas Mekar (Blooming Blossom)	Cot Buloh, ACEH BARAT	10	2010	Active
9	Harapan (Hope)	Simpang Peut, ACEH BARAT	14	2010	Active
10	Tunas Baru (New Bud)	Kubu, ACEH BARAT	23	2010	Active
11	Mekar Bersemi (Spring Blossom)	Kubu, ACEH BARAT	19	2010	Active
12	Bungong Jeumpa (Jeumpa Flower)	Panton Bahagia, ACEH BARAT	13	2010	Active
13	Kenanga (Kenanga Flower)	Simpang Peut Semantoh, ACEH BARAT	8	2010	Active
14	Mawar (Rose)	Arongan, ACEH BARAT	13	2010	Active
15	Melati (Jasmine)	Suak le Beuso, ACEH BARAT	13	2010	Active
16	Bungong Kamboja (Kamboja Flower)	Pante Mutia, ACEH BARAT	16	2010	Active
17	Karang Langsung (Bunch of Fruit)	Alue Bagok, ACEH BARAT	15	2010	Active
18	[To be determined]	Layeun, ACEH BESAR	40	Dec 2010	New group
19	[To be determined]	Kota Baru, ACEH BESAR	[TBC]	Dec 2010	New group

## 1.2. Objective

This assessment aims to identify and explore what is needed for the KWT project to continue to meet the needs of its participants, and to assist them to realise their own goals for the future. The results will guide the development of a 'Women in Agriculture Network' (WiAN) for Aceh, enabling BPTP and its partners to ensure that future activities are targeted to meet the needs of the groups and sustain their activities into the future. In addition, it will help to determine the focus and activities of a KWT forum, to be held in early 2011.

The KWTs have achieved outcomes across a range of areas to date, including social, economic, health and environmental benefits. While many of these benefits are already known to BPTP and I&I staff, the assessment has sought to develop a deeper understanding of these impacts and to identify and explore the range of strengths, weaknesses, opportunities and threats relevant to the KWT project.

### 1.3. Method

The primary data collection method consisted of face-to-face, semi-formal interviews with participants from a sample of KWTs. Interviews followed a questionnaire format and responses were recorded by hand. Two separate interviews were conducted for each group – one with the KWT leader, and one with a sample of group members. Where subgroups existed, the group member interviews included representatives from each subgroup.

Interviews were conducted with the following KWTs:

1. Mekar Jaya – Tanjong Ni, Bireuen
2. Kembang Panjoe – Blang Panjoe, Bireuen
3. Semangat Baru – Lipah Rayeuk, Bireuen
4. Tunas Harapan – Naga Uambang, Aceh Besar
5. Tunas Baru – Kubu, Aceh Barat
6. Mekar Bersemi – Kubu, Aceh Barat

All interviews were conducted in the field, either at farming sites, village meeting places or in the homes of KWT members.

The interview data has been supplemented by data collected informally during general visits with KWTs, and by meetings and conversations with staff from organisations that deliver similar or related projects in Aceh. These meetings were informal and took place as opportunities arose, with parties including:

- Jembatan Masa Depan, a local NGO that delivers group-based agricultural livelihood projects in Aceh Besar and Aceh Timur
- Canadian Cooperatives Association, which has established a number of farmer cooperatives around Aceh and is now working on a project to develop a marketing cooperative
- Health and nutrition experts working as consultants to UNICEF, including a researcher from the University of Melbourne
- Yayasan Permakultur Aceh, a local NGO that has delivered permaculture training to farmer groups in Aceh
- Local government extension officers (PPL), who work in partnership with BPTP to deliver agricultural projects. A meeting of PPL from across the regions in which BPTP works provided an opportunity to discuss issues facing the KWTs and the priorities for future capacity building activities.

This report also draws on reports and studies from the international development literature, which have helped to inform the scope and analysis of the needs assessment but do not constitute an exhaustive or comprehensive literature review.

### 1.4. Limitations

Due to time and resource limitations we decided to interview multiple members from the same group at once, rather than conducting separate interviews with individuals (with the exception of group leaders, as discussed below). This may

have influenced the types of responses received, and limited our ability to account for variables such as demographic differences.

While it was intended that group leader interviews would be conducted separately and involve only the leaders, in reality there were often various other people present (such as PPL and other group members). This may have affected responses, particularly to questions about leaders' working relationships with PPL and leaders' experiences and opinions of group management.

BPTP staff assisted with conducting and interpreting the interviews; while efforts were made to represent responses as accurately as possible, the absence of a professional interpreter is likely to have impacted on the quality of the data gathered. It is expected that some of the content and context may have been lost in translation. In addition, the fact that interviews were conducted by BPTP representatives – one of whom is male – may have influenced responses.

## 2. Discussion of findings

### 2.1. Social impacts

#### *Quality of life*

One of the KWT project's key strengths is its ability to impact positively on the social lives of participants, and the flow-on benefits this has for village communities. Interviewees described how participation in the KWT project has improved their quality of life, and many felt that the social impact of the project has been its most important outcome. KWT members valued the opportunity to spend time with other women on a regular basis, and explained that the focus on working together to achieve common aims has been a crucial success factor for their activities.



Figure 1: KWT members in Aceh Barat

The project's focus on group-work and collective action has been a crucial factor in its ability to achieve positive social outcomes. Various authors have documented the importance of collective-based strategies, such as forming cooperatives and micro-enterprises, when targeting women. For example, Nowak and Caulfield (2008) explain that by encouraging collective action women's organisations provide opportunities for women to develop leadership and management skills, build self-confidence and assist in establishing links with other groups that can provide support and assistance. The Food and Fertiliser Technology Centre (FFTC) argues for the establishment of women's groups as "a strategy to expand women's access to information, increase their comparative bargaining power, and create opportunities for collective action to access economic inputs" (FFTC, 2007).

The strong bonds and supportive relationships that have developed between KWT members were clearly visible during our field visits, and although they can be difficult to quantify and report on, their centrality to the success of this project should not be underestimated.

#### *Flow-on benefits*

The social benefits flowing from the KWT project appear to extend beyond the participants themselves and into their households and communities. An interviewee from Bireuen explained that her whole village has been a happier place since her KWT was established, while another interviewee spoke about the ability of the KWTs to transcend social barriers that could sometimes prevent



women of a lower social status from being involved in village activities. She explained that the KWTs provide an opportunity to bring together women from across village society, having a significant positive impact on quality of life.

### 2.1.1. Social impacts recommendations

No.	Recommendation	Potential partners
<i>Taking account of social impacts</i>		<ul style="list-style-type: none"> <li>- ACIAR/I&amp;I</li> <li>- Centre for Women &amp; Gender Studies</li> <li>- WiAN</li> </ul>
1.	Any extension of the KWT project, or future projects based on its model, should include social outcomes as primary objectives in recognition of their centrality to the success of the KWT model. This may also help to ensure that social impacts aren't overlooked during evaluation.	
<i>Further research</i>		
2.	Further research may be required to explore the relationship between social status and KWT participation. For example, do all women participate equally in group decision making, and do the relationships formed within KWTs result in changes outside the group?	

## 2.2. Gender issues

### ***The need for female-focused programs***

The KWT program's focus on women farmers aligns with contemporary theories of development, which emphasise the importance of empowering women in order to achieve long term outcomes across the spectrum of development issues. The global development literature asserts that women farmers are consistently underestimated and overlooked in development policies and strategies, and that this limits the ability of development programs to achieve their objectives. A discussion paper by IFPRI (2010) warns that "gender inequalities and lack of attention to gender in agricultural development contribute to lower productivity, lost income, and higher levels of poverty as well as undernutrition" (Peterman et al, 2010, p.1). The World Bank's 'Gender and agriculture sourcebook' (2009, p.2) identifies the failure to account for the "roles, differences and inequities" between men and women as "a serious threat to the effectiveness of the agricultural development agenda".

Within this context the KWT program has a very important role to play in empowering women and improving the productivity of women's livelihood initiatives. The global experience highlights a need to focus specifically on women in designing policies and interventions and, as discussed previously, the establishment of collectives or groups is considered a key strategy.

### ***Empowering women***

KWT participation can be an effective mechanism for empowering women. For example, a group leader from Aceh Besar region explained that even if she feels sick or unhappy before she leaves the house, once she joins the other women at the KWT plot she becomes a 'strong woman' and no longer feels her troubles.

The stories we heard during interviews and other visits revealed that KWT members were pleased and excited to be working productively alongside other women, and that this contributed to a general sense of agency and enthusiasm.

A key factor in the project's ability to empower women has been its focus on ensuring that KWTs are managed and driven by their members. The engagement of women in designing and delivering initiatives is well recognised as an effective strategy for empowerment, and a report by the International Centre for Research on Women (2009) lists 'engaging women in design and diffusion' of innovations as one of seven core strategies for achieving empowerment through innovation. The report points out that innovations are better able to address women's needs and produce positive outcomes for empowerment when women are involved in their design and diffusion.

The KWT project also contributes to financial empowerment by boosting women's economic independence. This is discussed further in Section 2.3, but it is important to note here that income-generating activities are not the only mechanism for achieving women's economic empowerment. The following elements are also considered essential:

- training in business management
- investment in women's literacy and general education
- guidance for women on how to balance family and work responsibilities
- dialogue on social and political issues, including women's rights and community problems
- experience in decision making
- promotion of women's ownership, control and participatory governance. (UNFPA, 2007)

In addition, some commentators argue that women's social standing cannot be increased without employing strategies such as gender empowerment training and linking women to women's organisations (Nowak & Caulfield, 2008). The KWT project has already made good headway into some of the areas listed above, such as providing experience in decision-making and promoting women's ownership of and control over projects; from here it may be possible to tailor a capacity building program that enhances progress in other areas as well, and indeed the current plans to deliver training in post-harvest processing and leadership workshops align well with this objective. Other opportunities that could be pursued in future include drawing on the Canadian Cooperative Association's model (see Case study 2) to conduct workshops on time mapping and gender issues, and pursuing more sophisticated governance and operational structures as the groups develop further (see Sections 2.8 and 2.9).

### ***A role for men?***

The KWT project does not presently include formal engagement with men. While the day-to-day operation of the project necessarily focuses on women, a failure to engage with men may prove to be a weakness as the project progresses. Research and case studies from around the world have shown that if

development projects are to address gender issues they must engage and target men as well as women. The 'Investing in women as drivers of agricultural growth' study, for example, points out that men's support is "critical to, and often necessary for the success of gender-responsive projects" (Ashby et al 2008, p. 4). In Aceh, where men tend to hold more powerful positions in everyday life as heads of both households and communities, projects that are not supported by men could be expected to face significant challenges.

When asked how their husbands felt about their participation in the KWT project, interviewees said they were supportive of the program and saw that it was beneficial both to their own households and to the broader community. Participants who were married generally said their husbands would help with particular tasks when required, including heavier work such as fencing and preparing fields for planting. However, as discussed in Section 1.4, limitations of this research (including the presence of a male interviewer/interpreter) are likely to have influenced the accuracy and extent of information we were able to collect on this topic. Interviewees appeared reluctant to discuss gender roles and related issues, and more targeted research would be required to obtain a comprehensive picture of gender issues in relation the KWT project.

#### ***Case study 1: Women's ownership of KWT development***

The author arranged for a group of women from a village in Aceh Besar, who were interested in starting up a KWT, to visit an existing group nearby so they could see how a KWT operates and discuss their concerns with a successfully functioning group. Following the visit the women were keen to establish their own KWT; with the help of BPTP they have now set up three subgroups and are preparing to plant their first crops.

The women who participated in the visit said that this was the first time anyone had offered them an initiative specifically for women, and that previous aid programs had tended to sideline women because they focused on or were coopted by the village's men. The women felt it was crucial that ownership of the project should begin and remain with them, and to this end they were keen to limit any involvement by the village's men during the establishment phase.

#### ***Gender in context***

While interviewees did not raise specific concerns about men's support for the project, it is important to consider this topic in the context of development research and experiences at a global level. Ashby et al (2008) have identified issues commonly affecting women's agriculture and livelihood projects including insecure land tenure, commercially viable projects being appropriated by men, and men being reluctant to approve capital expenditure for women's projects when women's labour is considered to be free.

On the first point, the needs assessment identified significant challenges relating to land tenure; these encompass a broad range of issues and are discussed in more detail at Section 2.6. Appropriation and access to resources are discussed below.

### ***Appropriation and project ownership***

Ashby et al (2008) caution that when women's livelihood projects become commercially valuable there is sometimes a risk they will be appropriated by men. The study gives the example of a women's fish processing project in West Africa in which an improved smoking oven reduced the processing time by 60% but resulted in men taking over fish smoking work from women once profitability improved.

As most of the KWTs are still in their infancy it is generally too early to establish whether appropriation of projects and resources is an issue within the project. However, discussions with KWT members and various NGO representatives suggest it is critical to ensure that women continue to have ownership of, and are empowered within, the establishment and management of KWTs. This is illustrated by an example from a local NGO, whose livelihood project attempted to establish women farmer groups by having male village leaders select and appoint group members. The groups formed under this model ultimately disbanded after failing to develop a cohesive working structure, an outcome that appears to have been at least partly due to a lack of ownership by the women members during the establishment process.

According to NGO workers consulted during the needs assessment, the above scenario has been mirrored in group-based agricultural projects throughout Aceh. A key point of difference for the KWT project has been its focus on participant ownership, including a requirement that groups self-select and are governed by the members. An outcome of this is that KWTs to date have tended to be highly cohesive, motivated and autonomous in terms of governance and daily operations.

### ***Access to capital and resources***

According to Ashby et al (2008), it is often more difficult for women to afford labour-saving and productivity-increasing technologies than men. The example below is illustrative:

*In Africa, a donkey-drawn intercrop cultivator could halve weeding time per acre, but women lack the cash to purchase new equipment and men will not invest cash when women's manual labor is available to them at no cost.*

*Ashby et al 2008, p.3*

It is difficult to gauge from interview data to what extent this has been an issue for the KWT project – while the interviews revealed that access to technologies is definitely a problem for the groups, the extent to which this is gender-related is not known. For example, participants of a group in Aceh Barat explained that if they wanted to use hand tractors they had to rent them from men's farming groups as they couldn't afford to buy their own; we asked how the men's groups had obtained the tractors to begin with and the women thought they had received funding through a local government program, but that this source of

funding was no longer available. At first glance this may not appear to be a gendered issue, however there are deeper questions about whether the level of and access to funding at the local government level is different for men's groups than for women, and whether the above scenario is representative of what happens in other groups. Further research is required to establish a clearer picture of how gender is implicated in this issue.

General resourcing issues are discussed in more detail at Section 2.4.

### **Women's workloads**

During the interviews we asked participants if and how their workloads had changed since joining the KWT project. While most responses were along the lines of 'we're more busy but also more happy and we wouldn't change it', the reality appears to be that women in Aceh generally have greater demands on their time than men, as is the case in many countries around the world.

A typical day for a KWT member includes rising early to prepare breakfast, get children ready for school and complete other home duties, followed by a couple of hours labouring in rice fields or at other paid work. After this, she may work with the KWT for an hour or two before returning home to prepare lunch for the family. In the afternoon she will usually return to the rice fields, and then if there is 'spare' time afterwards she may go back to the KWT plot again. At the end of the day she will go home to prepare dinner and throughout all of these activities she may also be caring for children or other dependants.

*Women perform 66 percent of the world's work [and] produce 50 percent of the food, but earn 10 percent of the income and own 1 percent of the property  
- UNICEF 2007*

There are a number of factors that contribute to women's workloads, including lack of access to timesaving technologies and the composition of traditional gender roles. During a meeting with the author, Rodd Myers (2010) explained how the Canadian Cooperative Association (CCA) has used gender workshops and techniques such as time mapping to address issues of inequity in labour division (see Case study 2).

#### **Case study 2: Putting gender on the agenda**

The Canadian Cooperative Association (CCA) has run gender workshops with every cooperative it has established in Aceh. Workshops are delivered by respected community figures (including an imam) as well as CCA staff and gender specialists, and include activities such as time mapping and discussions about ways in which men can support women – and why they should.

CCA has found that men are now more willing to help with tasks like childcare and cooking; in addition, 57% of group leaders are women and almost all groups have women in executive positions.

### **Gender and BPTP**

Institutional reform is widely considered to be a crucial underpinning component of efforts to address gender in development. Barun Gurung (WOCAN, 2011), a gender trainer and associate of Women Organizing for Change in Agriculture and NRM (WOCAN), feels that most science and technology institutions see gender issues as an 'add-on' rather than taking on measures to address structural inequalities and implicit biases. He describes some of the challenges that exist for achieving institutional change as follows:

*Gender inequality is perpetuated less by individuals than by structural inequalities and implicit bias. Evidence of structural gender inequality is everywhere: in the grossly disproportionate number of men in high positions; in the numbers of women occupying administrative and clerical positions in agriculture and NRM institutions... But this does not make 'scientists' or others gender biased. It is important [to] recognize that most professionals from agriculture and natural resource management institutions believe themselves to be free of gender bias. From their perspective, it is not easy to connect their individual actions and decisions to broader structural conditions and environments built up over decades.*

*Therefore, any meaningful training initiative must integrate the demands for a 'tool kit' approach with a training program designed to untangle the web of structures, conditions and policies that lead to unequal opportunities based on gender. Because structures can be dismantled and replaced and unconscious biases [can be] transformed...*

*(WOCAN, 2011)*

Clearly it is important to take organisational culture into account, and in BPTP's case it may be appropriate to begin by building staff awareness and understanding of gender issues. Developing a formal gender policy with high-level support, followed by workshops for staff on topics such as gender mainstreaming and gender responsive budgeting, may be an appropriate approach for BPTP in the near to medium term. The FAO (1999a) describes the value and purpose of institutional gender training as follows:

*The main objective of gender training is to help people in organizations to change the way they think by eliminating the stereotypical notions they hold about women's work and needs and consequently influence the way they act. Gender analysis training is also important to make allies and build support within the ranks by providing bureaucrats, policy-makers and planners with the knowledge and skills they need to deal with the conflict provoked by policy proposals to orient more resources to women.*

The needs assessment has identified several Aceh-based gender specialists and organisations that may be able to assist BPTP to develop an internal gender program, including UNIFEM, the University Syiah Kuala's Centre for Women and Gender Studies, the Ministry for Women's Empowerment, and the Centre for the Development of Women's Resources.

### 2.2.1. Gender recommendations

No.	Recommendation	Potential partners
<i>Building internal capacity</i> In order to ensure that its projects address gender effectively and appropriately it would be beneficial for BPTP to build staff awareness and understanding of gender issues. This could be facilitated by:		<ul style="list-style-type: none"> <li>- WiAN</li> <li>- Ministry for Women's Empowerment</li> </ul>
1.	Working with gender specialists to develop a gender policy for BPTP	
2.	Conducting staff workshops on topics such as gender mainstreaming	<ul style="list-style-type: none"> <li>- Oxfam</li> <li>- Canadian Cooperatives Association</li> <li>- Unsyiah Centre for Women &amp; Gender Studies</li> <li>- UNIFEM</li> <li>- Centre for the Development of Women's Resources</li> <li>- International Centre for Research on Women</li> </ul>
<i>Women's financial empowerment</i> Section 2.2 lists a range of elements necessary for achieving women's financial empowerment. Some of these are within BPTP's capacity to influence, while others may best be addressed through the WiAN.		
3.	BPTP should continue to look for opportunities to promote women's ownership, control and participatory governance through its KWT project	
4.	The WiAN is expected to create opportunities for addressing the broader range of elements – for example, enabling dialogue on social and political issues.	
5.	While the need to address gender is a large-scale issue and should be a focus of the WiAN, BPTP may also be able to undertake specific gender work as part of the KWT project. This would require partnerships with other organisations and may include finding ways to engage men directly whilst keeping ownership in the hands of women, such as running gender workshops with village communities.	
<i>Further research</i>		
6.	Further research into the impact and nature of gender issues in the KWT project is recommended. Due to sensitivities inherent in the topic and the nature of the data to be collected, such research would need to be conducted over a longer timeframe and to draw heavily on observational methods as well as interviews.	

### 2.3. Economic impacts

#### **Financial empowerment**

Based on interview data, income from selling KWT produce generally provides supplementary rather than primary household income. Most members have other work outside the KWT, usually as *buruh tani* (farm workers) in rice fields, or operating small enterprises such as making cakes or clothing. Despite this, economic advantages were listed as a key motivator for participating in the KWT project.

While generally not sufficient to provide economic stability in and of itself, KWT income makes an

*Many researchers have found that improvements in health care, nutrition and education can only be sustained with an increase in household income and greater control by women over financial resources.*

*- UNFPA 2007*

important contribution to household finances and women's economic empowerment. For example, interviewees explained that they were saving money from household budgets because they didn't need to purchase as many vegetables now that they were bringing some home from the KWT; in addition, the women said they often use KWT income to purchase sundry or non-essential items that they otherwise would not have or would need to ask their husbands for. These included telephone credit, cosmetics, pocket money for children, and contributions to village events.

Numerous studies have highlighted the importance of establishing economic independence as part of efforts to empower women. For example, a study of rural microfinance projects in Bangladesh (Nanda, 1999) suggests that "participation in economic activities is more valuable for empowering a woman than household income or socio-economic status" (p.10, 11), and found that women's health and roles in household decision-making were enhanced as a result of improving their access to and control over resources. Others have found that income-generating activities can address inequalities relating to health and nutrition, education and poverty (Rogers & Yousseff, 1988; Hashemi, 2004).

#### ***Increasing KWT income and improving access to resources***

Resourcing is clearly an issue for KWTs. While BPTP can assist with start-up costs during the group

establishment phase, KWT members recognise that there are technologies available that could help them to be more productive and make better use of their time but which they often cannot afford to purchase. During the interviews, for example, the Semangat Baru group reiterated several times that they would like to have a well onsite so that they don't have to carry water in from elsewhere. Similarly, a group in Aceh Barat wanted to acquire a hand tractor – at present they must either rent one from a men's farming group, which is expensive, or do the work by hand, which is more time and labour intensive.



**Figure 2: A trader pays a KWT member for produce.**

All of the groups interviewed were keen to expand the scope and range of their activities in order to increase their income. The extension of KWT activities beyond home gardens and into commercial production is in line with recent thinking on gender mainstreaming and appropriate development; for example, in



a study on 'Investing in women as drivers of agricultural growth', Ashby (2008) gives the following advice for policy makers and program designers:

*Traditional gender divisions of labor often consign women farmers to subsistence production for her household's own consumption. Policies and interventions that accept this as a given and assume that commercial production is the province of men will miss many opportunities to tap into the tremendous productive potential of women."*

Interviewees identified two key avenues for achieving these ends; the first was to increase the number and type of crops grown. In some cases, extra land and labour resources were already available to the groups but a lack of capital to cover start-up costs, such as constructing fencing and preparing land, meant these resources were not being utilised. For other groups, lack of access to land was a primary barrier to expansion. Land tenure is discussed further at 2.6.

Secondly, all interviewees expressed a desire to learn techniques for post-harvest processing, which they saw as an opportunity to add value to KWT produce and provide some protection against price fluctuation in the market. Interviewees were keen to receive training in post-harvest processing, and some such options have been identified (see Section 2.9). However, before providing training it will be important to establish whether there is sufficient market demand for the intended products.

Myers (2010) gave an example of a women's group that was encouraged to make various handicrafts for sale in Aceh; the project was unsuccessful due to a lack of local demand for the products as well as an inability to compete with more established providers from other provinces. In order to avoid such a situation, Myers recommended conducting a basic market assessment prior to proceeding with training for processing any specific product.

Conducting basic market assessments is a role that would suit PPL, although training would be required to build their capacity for undertaking the task.

Questions to be covered by a market assessment may include:

- How much demand is there for the intended product/s at present?
- Is demand likely to increase or decline, and is there potential to create extra demand?
- What is the current market price for the product?
- What would it cost for KWTs to produce the product, and would they be able to compete with similar products already on the market – for example, is the product currently imported from a region that can produce it more cheaply, or supplied by large-scale industries?

This assessment notes that any efforts to expand KWT activities will require some financial outlay to cover start-up costs. The most obvious avenues for accessing financial support include microcredit schemes and donor funding, which are discussed below.

### ***Microcredit***

At the time of the interviews, some groups had already been approached by microcredit providers offering loans; however, most were undecided about how to proceed and members were concerned about the potential risks involved. Specifically, members were concerned about being locked in to high-interest repayments that they may not be able to meet. Subsequent discussions with other groups revealed similar concerns, and indeed it appears that there is general reluctance towards accessing microcredit among KWT members.

However, while KWT members were hesitant about accessing external microcredit programs the interviews revealed that some groups are already providing a form of microcredit to their members. These groups use shared income to provide loans that can be paid back with interest as determined by the group. The upcoming forum provides an opportunity to open a discussion about microcredit by inviting speakers from one of the many providers and/or projects that are operating in Aceh. It will also enable those groups who have established their own microcredit initiatives to share their experiences with other KWTs.

### ***Donor support***

KWT members appeared to be generally comfortable with the idea of seeking grant or donor funding to cover capital costs. This option is of course limited by available grants and schemes, and the winding up of post-tsunami reconstruction activities has seen a mass withdrawal of NGOs and programs from Aceh recently; however, a preliminary web search suggests there are a number of agricultural- and livelihood-focused funding programs for which the KWT project may be eligible at the provincial, national and international levels.

A key role for BPTP is to build the capacity of KWT leaders and PPL to write proposals and apply for funding themselves, and there is an opportunity to provide such training as part of a leadership workshop at the upcoming forum (as discussed in Section 2.9). In addition, BPTP may also be able to assist KWTs directly – for example, by proofreading applications and bringing the groups into contact with funding bodies.

There is also the potential to establish partnerships with commercial enterprises, such as the Tunas Harapan group at Naga Umbang has already done: earlier this year the Tunas Harapan leader approached the Lafarge company, which operates the nearby cement factory, with a proposal to fund a new hand tractor for the village of Naga Umbang. The company agreed and is now interested in supporting the KWT further through its Corporate Social Responsibility department.

### 2.3.1. Financial impact recommendations

No.	Recommendation	Potential partners
<i>Microcredit</i> BPTP may be able to assist the KWTs to access microcredit schemes in an appropriate and beneficial manner by:		<ul style="list-style-type: none"> <li>- WiAN members</li> <li>- UnSyiah marketing/economics students</li> <li>- CCA farmer and marketing cooperatives</li> <li>- Economic Development Financing Facility (EDFF Aceh)</li> <li>- Microcredit providers</li> <li>- Corporate interests</li> <li>- Research Institute for Legume and Tuber Crops (Balitkabi)</li> <li>- Training organisations</li> </ul>
1	Conducting an assessment of microcredit schemes in Aceh, to provide guidance on the most appropriate options for KWTs	
2	Building capacity among KWTs to assess microcredit options	
3	Conducting a microcredit trial with one of the KWTs, with BPTP acting either as guarantor or credit provider	
4	Inviting microcredit providers and/or beneficiaries to speak at the upcoming forum	
5	Connecting KWTs with existing microcredit projects and potential partners/providers	
6	Documenting the internal microcredit arrangements that some groups have developed and providing opportunities to share the models and lessons among KWTs	
<i>Donor funding</i> BPTP could assist the KWTs to access capital funding by:		
7	Training leaders in how to develop funding proposals at upcoming forum	
8	Providing direct assistance with funding proposals, such as proofreading and giving feedback	
9	Linking KWTs with potential supporters and resources	
10	The upcoming forum will be a good opportunity for Ibu Zainabon, leader of Tunas Harapan KWT, to share her experience of obtaining funding from the Lafarge company.	
<i>Increasing income from KWT activities</i> It is recommended that BPTP assist KWTs to realise their goals of increasing income through expanding the range and quantity of crops grown, and expanding activities to include post-harvest processing, by:		
11	Assisting KWTs to access funding or finance schemes to cover costs associated with expanding crops and improving productivity; costs may include time-saving technologies and equipment, such as hand tractors, as well as standard tools, fencing materials, seeds and wells.	
12	Before proceeding with post-harvest processing initiatives it is recommended that BPTP conduct or coordinate a basic market assessment to establish demand for the intended products. This could be done through a partnership with university students or marketing specialists.	
13	BPTP is in discussions with Balitkabi regarding training for KWT leaders and PPL in establishing post-harvest processing enterprises, and it is recommended that this avenue be pursued in conjunction with the outcome of a market assessment.	

## 2.4. Food security

Food security is a high priority issue at both the local and global levels, and key agents in the food and agricultural sectors have recognised the importance of focusing on women to address the challenges faced. An address to the World Food Security Committee in 2010 by the executive director of the World Food Program (FAO, 2010a) included the following statement:

*There is a face to the 70 percent of small-scale agricultural production and it is the face of a woman... And there is a face to some of the most powerful proven solutions empowering women to grow more, to connect to markets, to safely cook their food and to nutritionally feed their families. Women can and must help us win this battle.*

Similarly, the Declaration of the World Summit on Food Security 2009 (FAO 2009) identified women farmers as a key target for efforts to address food security issues, and an International Food Policy Research Institute paper (Brown et al, 1995) asserts that “meeting world food needs in [future] will depend even more than it does now on the capabilities and resources of women”, given that women “not only process, purchase, and prepare food, but they also play a significant role in national agricultural production, producing both food and cash crops.”

### ***Understanding the issue***

The Rome Declaration on World Food Security (FAO, 1996) defined food security as follows:

*Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.*

There are many elements that influence and impact upon food and nutrition security, and according to Hahn (2000) these are often best understood at the local or household level: while factors such as access to and availability of food determine what food is brought into the home, decisions made at the household level ultimately determine what food is eaten, how it is prepared, how regularly it is consumed and by whom. Hahn (2000, p.5) explains that “what food is being put on the table... and who is to eat it... determines the composition of the meals for the individual.” In addition, habits, socially constructed ideas about ‘good’ and ‘bad’ foods, knowledge about how to prepare and process foods, and the physical environment of the household can all influence what is eaten at the household or individual level (Hahn, 2000).

An assessment of food security among KWT members and their households both before and at various intervals after joining the KWT project would be a useful benchmark against which to measure the project’s ongoing impact on food security. Issues to consider may include:

- Availability – what foods are physically available to KWT members? Has this changed as a result of the KWT project?



- Access – how has the KWT project impacted on household access to fruit, vegetables and protein sources (typically the most lacking components of Indonesian diets)? Does this differ across different types of households and locations? Does access to food have temporal or cyclical components (e.g. restricted access in the period prior to harvest) or in response to events such as flooding and crop failure?
- Utilisation – how is the available food prepared and distributed, and what impacts does this have on the health of household members? For example, are vegetables eaten fresh or stored for too long? How are they cooked? Are there differences in how food is allocated among family members?

Such an assessment would need to be conducted prior to a new group being formed so as to allow for adequate ‘before and after’ data collection. Alternatively, a comparative study between households with KWT participants and households without KWT participants may yield useful data.

#### 2.4.1 Food security recommendations

No.	Recommendation	Potential partners
<i>Further research</i>		
1	It would be valuable to conduct a full assessment of the food security impacts of the KWT project, to develop a clearer understanding of its contribution to this nationally and globally significant issue. This may involve linking with the work of the government’s food security and extension agency (Badan Ketahanan Pangan dan Penyuluhan), which is currently engaged in mapping food security in Aceh, and it is recommended that BPTP seek further information about this initiative.	<ul style="list-style-type: none"> <li>- WiAN</li> <li>- BKPP</li> <li>- FAO</li> <li>- Academic institutions</li> </ul>

#### 2.5. Health and nutrition

Interviewees reported that their household vegetable consumption had increased significantly as a result of their participation in the KWTs. While this study does not attempt to quantify health outcomes, and increases in vegetable intake were estimated in very general terms, the nutritional benefits of increased vegetable consumption are well known and it is therefore reasonable to expect that the KWT project has achieved positive nutritional outcomes.

According to the UN World Food Programme, the Indonesian diet in general is unbalanced and has a relatively low intake of fruits, vegetables and protein. In Aceh, malnutrition is a serious problem: an assessment conducted by UNICEF (2005) found that 37.9% of Acehnese children under five years suffer from stunting due to malnutrition, and that “poor nutrition [in Aceh] is a long term chronic problem related to poverty, poor nutrition, knowledge and practices...” Further, a recent UNDP report found that Aceh ranks in the bottom third or quarter of all Indonesian provinces based on health indicators (Jakarta Globe, 2010).

These findings highlight the important contribution the KWT project can make to physical wellbeing by helping to improve diets in Acehese communities. However, at present the nutritional benefits of the KWT project are essentially a ‘side-effect’ – although they are a welcome outcome, they are not a primary project objective. Recognising that BPTP does not have expertise in this area but that nutritional benefits have emerged as a significant project outcome, it would be worthwhile for BPTP to partner with other organisations to incorporate a targeted nutrition component into the KWT project. Some contacts have been established with nutrition specialists in Aceh through the needs assessment, and if BPTP can work with them to develop a nutrition session for the upcoming forum this would likely be a good first step.

### 2.5.1. Health and nutrition recommendations

No.	Recommendations	Potential partners
<i>Strengthening the health component</i> The KWT project has significant potential to positively impact on health in rural communities. This report recommends that BPTP build a more structured health focus into the program by:		<ul style="list-style-type: none"> <li>- WiAN</li> <li>- UNICEF</li> <li>- Academic institutions</li> <li>- Ministry of Health</li> <li>- NGOs with health programs</li> </ul>
1	Pursuing partnerships with health and nutrition programs, which could lead to the development of a nutrition component within the KWT project and could be advanced through inviting health and nutrition agencies to be involved in the WiAN	
2	Undertaking capacity building work with KWT members, such as including a nutrition and diet session in the upcoming forum which would include a discussion of the nutritional benefits of current and potential KWT crops as well as how to provide a balanced diet in the household	
<i>Further research</i>		
3	To develop a better understanding of the health and nutrition impacts of the project it is recommended that further studies be undertaken in partnership with nutritional and research experts. This could include a ‘before and after’ assessment of household diets, and may be done through the WiAN.	

### 2.6. Land tenure

During the interviews, KWT participants were asked to describe the tenure arrangements for the land they were using. Most groups ‘borrow’ land which is owned by individual KWT participants or by other villagers; in some cases the land is publicly owned and has been loaned or gifted by the village leader – sometimes with conditions attached, such as that the KWT must give some of its produce back to the village. At the time of the interviews none of the groups held their land under paid leases or formal tenure arrangements, and in the case of the Semangat Baru group in Bireuen, the land the group was using was actually for sale.

Insecure land tenure is recognised as a key issue for women in agriculture globally. The FAO (1999b, p.20) describes the situation as follows:

*Not only does the lack of secure title limit women's access to credit, it also bars them from joining farmers' associations, especially those concerned with processing and marketing. If women had secure title to land they could invest in it rather than merely working it, and this would encourage them to adopt sustainable farming practices.*

Insecure land tenure can undermine a woman's efforts to lift herself and her family out of poverty. The Women's Economic Empowerment report (UNFPA, 2007, p.2) explains that the scarcity of formal title to land deprives women of "asset-based security" and means that "even though women work on [the] land, they have little control over it and are limited in their household decision-making authority."

For the KWT project the lack of secure land tenure poses a threat to the long-term viability of each group, and may undermine their capacity to access capital for expanding activities and crops; however, the interviews revealed that KWT members are reluctant to acknowledge the issue. While none of the groups possess truly secure tenure of the land they are farming, all interviewees said that this was not a problem and resisted any further discussion on the topic. When interviewers asked what would happen if the owners of KWT land wanted it back, the common response was "it's not a problem – we'll find something else".

In Aceh the issue of land tenure may be complicated by uncertainties surrounding land title boundaries and ownership (Elliott, 2010). Addressing land tenure issues is likely to require a concerted and sensitive effort over the long term, and the scope of the issue is an issue transcends BPTP's work; however, given the global recognition of insecure land tenure as a key constraint for women in agriculture (FAO, 1999b), it is important to raise it here and to consider its implications as part of project planning activities.

### 2.6.1 Land tenure recommendations

No.	Recommendation	Potential partners
<i>Further research</i>		
1.	The complex and sensitive nature of this issue suggests it will need to be monitored over the long term. A deeper understanding of the factors contributing to, and indeed the extent of, the issue in Aceh is required if it is to be meaningfully addressed. This may be achieved through continued and concerted monitoring by BPTP, but it would be enhanced by collaboration with an institution experienced in development-related social research.	<ul style="list-style-type: none"> <li>- Centre for Women &amp; Gender Studies</li> <li>- International Centre for Research on Women</li> </ul>

### 2.7. Environmental impacts

This assessment did not attempt to identify or analyse environmental impacts from the KWT project, however some such analysis in future would be a very



worthwhile exercise. It is now well understood and accepted that environmental sustainability is an essential component of sustainable development, and the potential for agricultural projects to impact negatively on the natural environment necessitates a concerted and integrated effort to avoid or mitigate such impacts. The FAO (2010b) recognises that “hunger and poverty often compel the poor to over-exploit the resources on which their own livelihoods depend” and it will be important to ensure that the KWT project deals effectively with this issue as the project progresses.

### ***Women farmers and climate change***

Climate change is a key issue for the agricultural sector in terms of both its impact on farming and its contribution to the problem. While environmental impacts associated with agriculture, such as land clearing, emissions from livestock and fuel burning, contribute to climate change, it is the world’s poorest people who are most vulnerable to its impacts – and women and subsistence farmers are particularly at risk. The UNFPA (2009, p.4)’s *Facing a changing world: women, population and climate* report explains how climate change impacts differently on women than men:

*[Women] are among the most vulnerable to climate change, partly because in many countries they make up the larger share of the agricultural work force and partly because they tend to have access to fewer income-earning opportunities. Women manage households and care for family members, which often limits their mobility and increases their vulnerability to sudden weather-related natural disasters. Drought and erratic rainfall force women to work harder to secure food, water and energy for their homes. Girls drop out of school to help their mothers with these tasks. This cycle of deprivation, poverty and inequality undermines the social capital needed to deal effectively with climate change.*

While climate change and its relationship with agriculture is a large and complex issue that transcends the boundaries of the KWT project, the response to climate change must take place at the local as well as the global level and steps should be taken to ensure the KWT project is part of the solution rather than the problem. One such opportunity exists in relation to biochar: interviews revealed that KWT members and village residents generally rely on wood as fuel for cooking, while biomass generated through agricultural activities is often burnt in the fields. There is potential for KWT members to be involved in an ACIAR-led trial of biochar ovens, which can have the dual benefit of avoiding emissions related to collecting and burning firewood and biomass whilst generating organic material that can sequester carbon and improve the quality of soil (CSIRO, date unknown).

### ***Uptake of organic methods***

Some KWTs have already begun to employ organic methods, such as using bio-pesticides and organic fertiliser in favour of chemical products. Reasons given for using organic methods include that it was considered healthier for the women and their families, who consume at least some KWT produce, and because it was less expensive than using chemical products.



However, while some groups said they try to avoid chemical use altogether, most rely on a combination of organic and chemical cultivation. Ibu Zainabon, leader of the Tunas Harapan KWT in Naga Umbang, explained that the higher the value of the crop, the more likely chemicals would be used, as there is greater financial loss when a high value crop fails and therefore greater incentive to avoid risk (whether perceived or real).



**Figure 3: Ibu Supryani's biopesticide**

While most KWT participants have some knowledge about organic cultivation already, the extent of that knowledge is generally quite limited and all groups expressed a desire to learn more about organic methods. Existing knowledge appears to be largely a result of training and demonstrations given by Ibu Supriyani, the key extension officer in Aceh Barat, and other PPL; however, some of the methods currently being employed would be greatly enhanced by a stronger understanding of soil composition and function, composting and using cultivation systems such as permaculture to increase crop resilience.

The lack of in-depth knowledge about organic practices at present may be resulting in sub-optimal or negative outcomes. For example, when we visited one of the KWT sites the group was in the process of filling holes with both cow manure and the chemical fertiliser NPK prior to planting chilli seedlings (see Figure 4). According to BPTP staff, applying NPK at the same time as organic matter is likely to nullify the intended effects of the manure as the chemicals in the NPK would kill the beneficial organisms in the manure.



**Figure 4: Mixing of chemical and organic fertilisers highlights need for training.**

The findings of a study on the adoption of organic vegetable production practices in Bali and West Java underscores the need to ensure that PPL are well trained in

organics, as “limited interaction with extension agents” was one of the key factors constraining the acceptance of organic farming in the areas studied. While KWTs have extensive contact with extension officers, the ability of those officers to influence organic uptake and acceptance is dependent on their knowledge and capacity in relation to this topic, and there are various training options available in Aceh (discussed further at Section 2.9).

Other factors the abovementioned study identified as limiting the acceptance of organic methods were:

- Limited contact between farmers and consumers
  - Lack of enforcement of standards for organic produce
  - The high cost of certifying produce as organic; and
  - Weather conditions, especially long dry seasons and excessive precipitation during the rainy season, which makes control of diseases difficult.
- (Takagi, 2010)

### 2.7.1 Environmental impacts recommendations

No.	Recommendations	Potential partners
<i>Monitoring environmental impacts</i>		<ul style="list-style-type: none"> <li>- WiAN</li> <li>- Environmental NGOs</li> <li>- Government bodies</li> <li>- Academic institutions</li> <li>- Local NGOs</li> <li>- Academic institutions/ research bodies</li> <li>- Yayasan Permakultur Aceh</li> <li>- IDEP Foundation</li> </ul>
1	Partner with other organisations to conduct an environmental impact assessment of the KWT project, and seek opportunities to avoid or mitigate impacts.	
<i>Contributing to climate solutions</i>		
2	Explore the potential to partner with an ACIAR biochar trial	
3	Seek opportunities to partner with climate change focused initiatives through the WiAN	
<i>Capacity building for uptake of organic methods</i>		
4	In response to the interest expressed by interviewees and in recognition of the need to focus on environmental outcomes, it is recommended that BPTP arrange for KWT representatives and PPL to undergo training in organic methods	
5	The interviews revealed that health concerns for themselves and their families are a primary motivator for KWT members to shift to organic practices. BPTP may be able to tap into this sentiment to promote a goal of reduced pesticide use through a spectrum of practices that includes organic cultivation.	
<i>Establishing demand for organic produce</i>		
In order for KWTs to profit from employing organic methods, demand for organic products must first be established. BPTP may be able to assist in stimulating demand by:		
6	Promoting organic produce through its existing farmer and professional networks and in public forums, where possible	
7	BPTP may also be able to support or partner with initiatives such as the development of an organic certification scheme for Indonesia (PAMOR). Yayasan Permakultur Aceh will host the local office for the PAMOR scheme, which is based on a farmer group model. Once established, the WiAN may also wish to engage with this initiative and could play a role in its implementation.	

## 2.8. Group structure and function

### **Group leadership**

Good leadership is crucial for the effective function of the KWTs, from establishment through to ongoing management and planning. Leaders' roles include organising and facilitating meetings, day-to-day problem solving, financial management, and communication with stakeholders and supporters (such as PPL and BPTP).

Among existing leaders the level of experience and group facilitation skills varies significantly – for example, the leader of the 'Semangat Baru' group in Bireuen is a retired teacher and wife of the village leader, and as such holds a prominent position in the community and has had many years experience facilitating groups. By contrast, another group leader had only recently finished studying at the time of the interviews and was younger than many of her KWT's members. Although she had studied in a relevant field (agro-technology), she had had no previous experience of group management and sometimes worried that her knowledge and experience were insufficient in comparison with other group members.

These findings suggest a need for leadership training for group leaders, as discussed further under Section 2.9.

### **Governance**

As the KWTs grow in terms of size, experience and range of activities, they are likely to require more formalised and defined governance arrangements. The CCA model, along with others, could be investigated as a potential option for KWTs. CCA's cooperatives are governed by elected boards, as well as having a group leader to manage day-to-day operations, and some of the groups have progressed to the point where they have hundreds of members and operate similarly to credit unions. A representative from CCA and one of its cooperatives will be invited to speak at the forum about the models they use.

#### **2.8.1 Group structure and function recommendations**

No.	Recommendations	Potential partners
	<i>Capacity building for leadership and governance</i> There is a clear need for KWT leaders and PPL to undergo leadership training. In addition, as the KWTs grow they may need to establish more formal or sophisticated governance arrangements. These objectives can be progressed by:	<ul style="list-style-type: none"> <li>- Impact Aceh</li> <li>- WiAN</li> <li>- Canadian Cooperatives Association</li> </ul>
1	Providing leadership training sessions for KWT leaders and PPL at the upcoming forum	
2	Providing opportunities for KWTs to engage with other projects and learn about governance options: the forum and WiAN will help to facilitate this	

## 2.9. Building capacity

### ***Peer-to-peer learning***

It is evident that the KWT model is effective in facilitating peer-to-peer learning. Women said they had learned cultivation techniques and methods from other group members, adding to knowledge they had gained from family members, extension staff and other means. Interviewees had also learned new information and skills from other KWTs during 'farmer-to-farmer' visits organised by BPTP, and were eager to participate in future visits.

The upcoming forum will provide an opportunity for further peer-to-peer learning and exchange, and the eventual development of a 'Women in Agriculture' network is expected to

formalise and facilitate communications between groups so that knowledge and skills can be shared in an ongoing capacity.

### ***Leadership training***

The interviews revealed a need to provide leadership training for group members. This finding was supported by a later discussion with local extension officers, who see leadership training as the most pressing capacity building priority for the KWTs. Related to this issue is the need to disperse some of the decision-making power within groups: while some KWTs have appointed a treasurer as well as a leader, most reported that the role of leader is the only distinct position within the group. One group leader explained that this creates a heavy burden for her, and that her role would be made easier and more manageable if she weren't required to be involved in every decision the group makes.

There is an opportunity to provide leadership training at the upcoming forum. A session for KWT leaders may cover topics including:

- Group facilitation, governance & problem solving
- Developing funding proposals
- Building confidence



**Figure 5: The leader of Semangat Baru speaks with group members during an interview.**

Local extension officers would also likely benefit from leadership training at the forum, with topics including:

- Group facilitation
- Networking and building support for PPL activities
- Transferring skills & knowledge

### ***Organic cultivation***

As discussed previously, KWT members are keen to learn more about organic cultivation. A local NGO called Yayasan Permakultur Aceh (YPA) has a range of resources, including a demonstration site in Lhokseumawe and permaculture books for adults and children, and delivers permaculture training to farming groups around Aceh. It is recommended that BPTP meet with YPA to discuss the potential for a training course for group leaders and PPL. In addition, if the Women in Agriculture forum is held in Bireuen it may be possible to arrange a field trip to the Lhokseumawe demonstration site.

### ***Post-harvest processing***

As discussed under Section 2.4, KWTs have expressed a strong interest in expanding their activities to include post-harvest processing. There is training available through the Research Institute for Legume and Tuber Crops (Balitkabi), which covers how to establish post-harvest processing micro-businesses for crops such as sweet potato and beans. This avenue is currently being pursued, with the hope of training group leaders in early 2011.

### ***Gender and time management***

Section 2.2 discussed gender issues in relation to the KWT project and the need to develop an organisational approach to gender within BPTP. The KWT project provides a good opportunity to raise gender issues at the community level, and in future it may be appropriate to deliver workshops on gender-related topics, such as workloads and how men can support women to achieve greater productivity and quality of life for the whole household. As discussed in Section 2.2, the CCA model may provide useful guidance on how to approach such an activity, and there are gender specialists in Aceh who may also be able to assist or advise.

#### **2.9.1. Capacity building recommendations**

<b>No.</b>	<b>Recommendation</b>	<b>Potential partners</b>
<i>Planning for future needs</i>		<ul style="list-style-type: none"> <li>- Impact Aceh</li> <li>- Yayasan Permakultur Aceh</li> <li>- Balitkabi</li> <li>- Jembatan Masa Depan</li> </ul>
1	It is recommended that BPTP and/or the WiAN develop a capacity building schedule that can be continually monitored and updated to reflect the needs of project participants, based on ongoing consultation with KWT leaders and PPL.	
<i>Training</i> It is recommended that training be pursued for PPL and KWT members on the following topics:		
2	Group facilitation and leadership	
3	Organic farming methods	

4	Improving crop resilience to pests, diseases and extreme weather events	<ul style="list-style-type: none"> <li>- Economic Development Financing Facility (EDFF Aceh)</li> <li>- Canadian Cooperatives Association</li> </ul>
5	Post-harvest processing and value-adding enterprises	
<i>Peer-to-peer learning</i>		
6	KWT-to-KWT visits have proven to be an excellent capacity building and networking technique and it is recommended that BPTP continue to conduct such visits, including with groups outside the KWT project	
7	The WiAN will provide an opportunity to facilitate regular contact between group leaders to assist in skills sharing, peer-to-peer learning and collective problem solving	
<i>Building PPL capacity</i>		
8	The assessment revealed a need to increase local government resourcing of PPL; BPTP may be in a position to advocate for increased support in order that PPL have the necessary tools and skills to effectively assist its projects. ACIAR/I&I may be able to support BPTP in this and it is a role the WiAN could also play.	
9	It appears there is also a need to make better use of train-the-trainer approaches among PPL, and the upcoming forum provides a good opportunity to build capacity in this area as part of leadership training for PPL.	

## 2.10. Project coordination, resourcing and support

### *The role of BPTP*

BPTP acts as coordinator for the KWT project, assisting in the establishment of groups by giving advice about group structure and function, giving technical advice about crops and cultivation, providing funding for start up costs and linking groups with local extension staff (PPL). BPTP also delivers capacity building activities such as women’s forums, ‘KWT-to-KWT’ visits to support knowledge exchange between groups, and tailored training on specific topics where possible.



Figure 6: KWT project coordinator Ibu Nazariah, right, with group members.

In establishing KWTs, BPTP’s approach has been to respond to requests for assistance rather than actively recruiting to the project. When a woman or group of women initially expresses interest in establishing a KWT, BPTP requests that they first form a group of interested parties and then submit a proposal outlining who will be involved and what activities they would like to undertake. BPTP staff then visit the group to discuss

the next steps. During these preliminary phases, BPTP emphasises the importance of groups being self-motivated and willing to work towards independence rather than being reliant on ongoing financial support from BPTP.

While this approach has yielded good results, it relies on potential groups having heard about the project to begin with and knowing who to contact about it. If the project is to be expanded or rolled out in future, it will be necessary to promote it actively. In this case BPTP would need to develop strategies to ensure that its empowerment approach is not compromised, which could include formalising the proposal process and training PPL to deliver group establishment workshops.

According to interviewees the involvement of BPTP serves to motivate KWT members – especially when BPTP representatives visit the project sites – and helps them to feel that their activities are valuable and supported. The geographic spread of the project sites, as well as the increasing number of groups, means that BPTP cannot maintain a regular physical presence with most groups and must rely on PPL as the key link to the groups.

#### ***The role of local extension workers***

The relationship with local extension staff (PPL) appears to add significant value to the KWT project. With the exception of Tunas Harapan in Naga Uumbang and the new group in Layeun, each group has a PPL assigned to it<sup>1</sup>; this is usually a woman who lives in the same village as, or has existing relationships with, KWT members. PPL maintain frequent contact with the groups – some visit the kebun (plot) every day, while others visit at least once a week. This has led to the establishment of close relationships between KWT members – particularly KWT leaders – and PPL. In one group, the KWT leader had previously been the PPL's schoolteacher and she described their relationship as being "like mother and daughter". The ability to maintain long-term relationships with KWTs appears to be a key benefit of PPL involvement.



**Figure 7: Extension workers from Bireuen catch up at a corn harvest ceremony.**

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<sup>1</sup> BPTP acts as PPL for the Aceh Besar groups as the closer proximity of the groups to the BPTP office makes it possible to maintain more regular contact with them than with other groups. This also serves to reduce costs because BPTP doesn't need to pay for PPL involvement.

In addition, PPL have local knowledge and access to resources that can support the work of the KWTs. Interviewees described how PPL act as conduits for information and skills, sharing knowledge with the groups about cultivation methods, suitability of different crops, market prices for produce, and so on. A group member from Bireuen explained that the relationship with the PPL increased the KWT's access to broader knowledge bases and information networks: for example, if the group has a problem they can take it to the PPL, who can then take it back to the office and consult colleagues.

Given the centrality of their role in ongoing capacity building and as a conduit for communications between the KWTs and other bodies, it is in the interests of the project to ensure that PPL are adequately trained and resourced. However, from anecdotal evidence it appears there is a shortage of local government funding for PPL activities. Some efforts have been made in the past to build support for the KWT project among local authorities, and it is important that BPTP continue to promote the project and seek opportunities to bolster local government support. The upcoming forum and development of the WiAN may assist with this task, and the forum provides an opportunity to open a discussion about how local government can support the project into the future.

### 2.10.1. Project coordination, resourcing and support recommendations

No.	Recommendation	Potential partners
	<i>Sharing the workload and empowering stakeholders</i> BPTP plays a crucial role in helping KWTs to become established and supporting them through the initial phases; if the program is to be rolled out to a larger audience in future it will be difficult for BPTP to maintain this level of involvement. BPTP may be able to facilitate project expansion by:	- WiAN - PPL/BKPP - ACIAR/I&I
1	Formalising the establishment process and training PPL to implement it	
2	Developing a strategy for engaging with local government authorities, which are key to the delivery and success of the KWT project (through PPL). Involving local government representatives in the establishment and operations of the proposed WiAN will be a good opportunity to increase their ownership over and interest in the KWT project.	

## 2.11. Women in Agriculture Network

The establishment of a Women in Agriculture Network (WiAN) for Aceh has been proposed as an activity to be initiated by BPTP. This network would be expected to achieve a number of positive outcomes in terms of the communications, coordination and resourcing of the KWT project, as well as being a vehicle for ongoing collaboration and capacity building within the development sector in Aceh generally. A WiAN that includes a mechanism for regional chapters to work together and report back to a central or overseeing committee could strengthen communications between KWTs and PPL, and would also provide opportunities to form links with other organisations and groups doing similar work.



A structure that includes regional chapters and a democratically elected committee of management may be an appropriate mechanism for governance, although other models may be suggested during the establishment phase. While BPTP may play a coordinating or facilitating role during the planning and initiation phase, the aim should be for the WiAN to function autonomously once it is operational.

Whatever shape the WiAN eventually takes, it will be important to ensure that women farmers hold influential positions and can be involved in setting strategic directions for the network into the future. A report produced by the International Centre for Research on Women (Malhotra et al, 2009) identifies “including women in the design and implementation of innovative ideas” as a core approach to creating meaningful change for women, and a conversation between the Rome Women’s Group and the Network of Women Ministers and Leaders in Agriculture (FAO, 2010c) spoke of the fundamental importance of “promoting women’s effective participation in the design and implementation of agriculture, food, and nutrition security policies and decisions” in order to strengthen rural women’s leadership.

### 2.1..1. Women in Agriculture Network recommendations

No.	Recommendation	Potential partners
<i>Establishment</i> The development of a ‘Women in Agriculture Network’ for Aceh was identified as a key activity prior to the conduct of this needs assessment, and the information gathered strongly supports the need for such an initiative. It is recommended that BPTP facilitate the establishment of the WiAN by:		See recommendations 4 and 7
1	Introducing the concept and seeking expressions of interest at the upcoming forum	
2	Convening a ‘network planning session’ with stakeholders sometime after the forum	
3	Facilitating the appointment of an interim committee to guide the establishment process and ensure that ownership is not centred within BPTP	
4	Engaging with the Australian Women in Agriculture Network, which has been instrumental in helping to establish a similar network in Papua New Guinea as well as undertaking its own activities in Australia.	
<i>Structure</i> While the interim committee would be responsible for designing an appropriate operating structure for the WiAN, this assessment suggests that:		
5	Establishing regional chapters is likely to facilitate effective communications and increase the Network’s ability to make a practical contribution	
6	KWT representatives should be meaningfully engaged in the establishment, operation and strategic direction of the network	

7	<p>Potential members for, or contributors to, the proposed WiAN may include:</p> <ul style="list-style-type: none"> <li>▪ Local and regional authorities including the Ministry of Agriculture, Ministry of Food Security, Ministry of Women’s Empowerment and Children’s Protection, Ministry of Health and local government bodies</li> <li>▪ Local NGOs such as Jembatan Masa Depan, Yayasan Permakultur Aceh, EDFF</li> <li>▪ National NGOs such as IDEP</li> <li>▪ International NGOs that have a local presence and deliver or fund similarly focused projects, including FAO, IOM, UMCOR, Swiss Contact, Red Cross, Muslim Aid</li> <li>▪ Research institutions such as UnSyiah and private universities, Indonesian Soils Research Institute, Indonesian Legumes and Tubers Research Institute, the UNICEF nutrition team</li> <li>▪ Gender specialists</li> <li>▪ Farmer cooperatives, such as those under CCA</li> <li>▪ Health and nutrition programs and organisations</li> </ul>	
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## 2.12. Promotion and communications

The KWT project has achieved a range of positive outcomes to date, and its methodologies appear to have been successful in areas where others have struggled. However, conversations with NGO workers as part of this needs assessment revealed that both BPTP and the KWT project are relatively unknown among the NGO sector in Aceh. Collaboration with other organisations is likely to lead to better outcomes on both sides, and there is therefore a need to promote BPTP’s work to a broader audience. The Women in Agriculture forum and network will provide good opportunities for this across the short and medium term.

The development of a Women in Agriculture Network will also provide a good opportunity to undertake some strategic planning for the project, which should include the development of a communications strategy.

### 2.12.1. Promotion and communications recommendations

No.	Recommendation	Potential partners
<i>Facilitating effective communications</i>		- WiAN
1.	There is a need for BPTP to develop a communications strategy to coordinate its approach to promoting its activities and messages, and to ensure the organisation can both identify with and effectively communicate and collaborate with other stakeholders.	
2.	BPTP should seek opportunities to promote and communicate the impacts of the KWT project to a broader audience, to ensure that supporters and relevant authorities fully appreciate the value of the project. The Women in Agriculture forum and Network will provide good opportunities for this in the short and medium term, respectively.	

### 3. Conclusion

A key aim for the KWT project at present is to work towards independence for existing groups and establish a formal network under which the groups can be organised. Groups' capacity to achieve independence will depend largely on the ability to build leadership skills within groups, and strengthening the roles and capacity of PPL. Establishing a formalised network with regional chapters will likely facilitate ongoing capacity building and communications between stakeholders, strengthening links both between KWTs and with local authorities, NGOs and other relevant bodies. As such, capacity building activities to develop leadership skills and the development of a Women in Agriculture Network should be pursued as key priorities for the KWT project.

The key impact areas of the KWT project to date have been social, economic and health related. The project has achieved some significant outcomes, particularly those relating to women's empowerment and quality of life, and it is important that BPTP pursue opportunities to promote them as well as ensuring that they are retained as an indicator of success in any future roll-out or expansion of the project.

While the KWT project has generated positive outcomes for women's empowerment, there is a need to strengthen BPTP's institutional understanding of and approach to gender issues as well as pursuing research opportunities to establish a deeper understanding of the gender related issues arising from and influencing the KWT project.

With regards to economic outcomes, the groups are keen to expand their activities and increase their income from KWT output. There are opportunities to pursue this through post-harvest processing and increasing productivity through access to technology, continuing to improve cultivation techniques and increasing the number and type of crops grown; however, these activities will require some capital outlay and the groups need to develop skills in making funding proposals as well as in assessing and utilising microcredit options.

The project appears to be impacting positively on health and nutrition by increasing participants' vegetable intake. This component of the project could be strengthened through collaboration with nutrition specialists and health-focused programs, leading to a more comprehensive and targeted approach that can fully realise the project's potential in this area.

There is a need to focus on achieving environmental outcomes and this may be progressed by harnessing participants' interest in organic cultivation, as well as through partnerships with other organisations to better understand, monitor and mitigate environmental impacts.

The ongoing need for capacity building is an area that BPTP can and should continue to monitor and address. Capacity building activities to date have been

effective and well-received, and future capacity building programs should be defined in collaboration with PPL, KWT members and the proposed Women in Agriculture Network.

Finally, this needs assessment has provided a surface-level exploration of the KWT program's strengths, weaknesses, opportunities and threats; however, further research is needed to better understand the more subtle and nuanced issues, such as gender and land tenure, and topics that require quantitative assessment, such as nutrition and environmental impacts.

#### Addendum

Following the completion of this report the author accessed a recently published 2010 United Nations Development Programme report on human development in Aceh. This up to date report provides some specific information particularly relevant to gender issues in Aceh.

UNDP 2010 Provincial Human Development Report Aceh 2010. Human Development and People Empowerment  
<http://www.undp.or.id/pubs/docs/Aceh%20HDR%20-%20English.pdf>

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