Gender capacity development and organizational culture change in the CGIAR Research Program on Aquatic Agricultural Systems: A conceptual framework
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The CGIAR Research Program on Aquatic Agricultural Systems (AAS) supports resource-poor women and men to overcome poverty, malnutrition and food insecurity by bringing science to bear on these challenges. Social and gender issues, which restrict women and men, adversely impact development in the aquatic agricultural systems. AAS has embraced gender-transformative approaches (GTA) to achieve its goals. Broad buy-in is needed to effectively integrate GTA into research programming and organizational processes and practices.

This working paper outlines the conceptual framework for a gender capacity development and organizational culture (GCDOC) approach in AAS. The conceptual framework builds on three theoretical and conceptual bodies of literature: transformative learning, socio-technical regimes and governance, and organizational culture and learning.

Transformative learning goes beyond knowledge and skills and involves a shift in mental models and personal beliefs. “Gender-knowing” is not just about gender inequalities, but recognizing root causes and how these accentuate behaviors and norms that maintain the status quo.

The socio-technical regime and governance covers the social and gender landscape, regime and niches. The social and gender landscape represents macro-level trends and contextual drivers. The regime is a system of social structures and practices that includes unequal power relations and harmful norms. Niches are small networks of individuals influenced by the landscape and regime. In these spaces changes and learning occurs.

Organizational culture is a shared set of values, beliefs, language, practices and assumptions held by the people in an organization. A strong culture — good or bad — is characterized by core values being deeply held and widely shared. Organizational culture is a key feature of operational competency and effectiveness and fosters appropriate behavior, skills and attitudes.

The GCDOC approach proposes a multilevel, nested theory of change to transform gender regimes. Individuals in niches go through learning processes that build knowledge and help them apply it. This new knowledge and learning influences and modifies current social and gender regimes. Sometimes spontaneously but more often with active support, the transformative results can influence the social and gender landscape. Transformation occurs along different pathways at the individual, organizational and system levels. To encourage individual and collective transformative learning, catalytic support needs to be constant and strong through organizational leadership. The system is connected to and becomes part of larger networks of cultural and social change and transformation that are scaled outside AAS.

The proposed blended learning methodology focuses on the complex nature of gender-transformative change at different scales (individual, organizational and system). A part of this process is learning to “unlearn” in order to help the individuals and the collective move away from previous mindsets and practices. In addition to traditional forms of learning (learning for action), learning initiatives that focus on learning while at work (learning in action), and reflection and learning from experience (learning from action) are included. A cascade coaching approach is proposed to support the blended learning. A multistep planning process and a set of guiding principles are suggested as AAS designs strategies for translating the GCDOC approach into action.
INTRODUCTION

Initiated in 2011, the CGIAR Research Program on Aquatic Agricultural Systems (AAS)\(^1\) aims to work with resource-poor women and men and vulnerable communities in their fight against poverty. Despite decades of agriculture research, the challenges of hunger, poverty, sustainability and resilience persist in many places. This is in part due to the complexity of agricultural farming systems and the inadequate attention paid to understanding and addressing the social, cultural and political issues among these communities. Gender and social inequalities aggravate poverty and also generate food insecurity, malnutrition, low productivity, natural resource loss and degradation of ecological systems. Developing fair social, economic and political structures to empower resource-poor and marginalized women and men is a priority if we want to make a dent in poverty. AAS targets the reduction of poverty and vulnerability of women and men through embedding research in development processes.

Significant advances in the field of gender and development draw attention to the fact that addressing the symptoms of gender inequality without addressing the underlying causes is not effective in achieving sustainable impact. These causes include the power relations underpinning gender roles and norms; human behaviors and practices; and social systems and structures. However, agricultural research and development practice has not adequately engaged with these underlying causes and continues to design piecemeal interventions that only address material constraints. These interventions are necessary but not sufficient for achieving real and sustained change. The Women’s Major Group (2013) states that “the main lesson learned from past development goals is that we need to understand the root causes underlying the current unsustainable and inequitable system in order to develop a new paradigm that allows for the survival of the planet as well as a more equitable social order.”

AAS has embraced gender-transformative approaches (GTA) in its research-in-development approach, and aims to understand and tackle the causes of social inequality. By empowering women and men through transforming social norms and power relations, AAS seeks to achieve equitable systems and structures. This is expected to result in more and better life choices for resource-poor women and men and enable social, political, cultural and economic environments that help them realize those opportunities.

This approach moves away from business as usual in agricultural research and development. Hitherto, the focus has been on bridging the gender gaps in access to productive resources to help women improve the productivity of their agricultural enterprises and contribute to food security. However, evidence has shown that outcomes of such interventions are short-lived and not always beneficial to resource-poor women, men and their households. This situation calls for understanding and actively addressing the social inequalities that lead to gender gaps. A different set of interventions and skills are needed in research and development organizations to effectively address these underlying inequalities. To this end, AAS is pursuing an approach that targets gender capacity development and organizational culture (GCDOC).

This paper lays out the rationale behind the GCDOC approach, the conceptual framework underpinning it, the theory of change, and a brief description of methods that will be employed. This first section provides the context and rationale for the approach. The second section describes the three theoretical strands that form the basis of the conceptual framework. A multilevel, nested theory of change is presented in the third section. Section four introduces three nested transformative pathways that are critical for supporting gender-transformative change. This is followed by a discussion of the domains of cognitive learning in section five. Section six lays out the multistep implementation strategy. Finally, the seventh section summarizes guiding principles for designing, developing and implementing the learning activities.
Reimagining capacity development and organizational change to support transformation

AAS will not be able to effectively implement its gender-transformative research-in-development agenda without broader buy-in and commitment to integrating GTA into its research programs as well as within its organizational structures. This integration includes paying attention to the gender capacities and skills of staff and partners, nurturing the organizational culture for gender equality and diversity, and enabling an environment that supports processes of change and transformation (Figure 1).

![Diagram showing Capacity for gender research + Enabling organizational culture, GTA become standard practice in AAS, Successful implementation of AAS gender strategy]

**Figure 1.** Capacity and culture: Key factors for implementation of the AAS gender strategy.

The AAS vision is to be a program capable of integrating GTA to achieve transformative change that will lead to development outcomes. The program leadership team has articulated this vision as follows:

“AAS teams (which includes partners) at various levels understand, appreciate and are able to articulate how gender and social inequalities and power relations affect development outcomes. They have the required knowledge and skills (based on their roles and responsibilities in the program) to analyze and interpret sex-disaggregated data to identify gender-related issues in the program; to situate GTA in a broader intellectual landscape; to distinguish truly transformative efforts and outcomes; and to design approaches and pathways and implement activities that can lead to transformative outcomes. Their values and behaviors reflect an awareness of the causes of inequality and a willingness to challenge them. They are open to personal change and learning and are willing to contribute to an organizational culture that is diverse, inclusive, and supportive of men’s and women’s personal and professional development. They are inspired and have the capacity to engage in continued and deep dialogue, learning, sharing and advocacy about gender-transformative change within and beyond the program at different levels and to become effective change agents, not only contributing to positive social change in the communities where we work, but inspiring other organizations and stakeholders to integrate GTA in agriculture and natural resource management development efforts. The senior leaders and managers are active champions of these approaches and are willing to commit financial and human resources to support institutionalization of GTA at all levels. Integrated processes and procedures that allow for full contribution of men and women staff are established and accepted as norms.”

The AAS GCDOC approach provides a pathway to achieving this vision. Its purpose is to support staff members and partners in developing capacities, skills and attitudes to appreciate, understand, adopt, adapt and integrate GTA in research programming and in the workplace. The objective is to move beyond being a program with diverse ideas and understandings of gender to a program capable of integrating GTA in research for pro-poor development.
To achieve our goals, we need to go beyond conventional efforts toward gender mainstreaming. We need to change our organizational culture and policies to facilitate the pursuit of transformative practice. This calls for a change in discourse about the social change agenda, as well as organization-wide understanding of, appreciation for and commitment to the need to pursue transformation. The need for change has to appeal to people’s hearts and minds. Transformation does not come from comfort, but happens when we encounter disorienting dilemmas (Mezirow 1991), adversity and inequalities. This experience happens on the individual level, and personal transformation enhances capacities for systemic action (DeTurk 2006). Gender-transformative practice in the health sector has shown that while knowledge and behaviors change due to interventions, attitudes are much more resistant, and these have the potential to reverse changes once programs end. This is also true for people in research and development organizations. Gender-transformative practice has to become part of the organizational DNA.

Experience shows that one-off gender trainings to increase awareness and impart necessary skills have not been very effective. AAS aims to understand how to change mindsets, behaviors and capabilities of diverse actors to make gender equality an integral outcome of agricultural development research and practice. To this end, AAS intends to develop and systematically test different approaches for capacity development and organizational culture change that will be relevant for agricultural programs aiming for gender-transformative change (Puskur 2014). Capacities need to be nurtured and capitalized on through an enabling organizational environment that includes leadership, management practices, systems and policies, organizational structure, and work environment (Figure 2). Strong leadership is vital to build support for GTA and align key institutional processes behind them.

Figure 2. Elements of capacity and culture.
The basis for the GCDOC approach is a conceptual framework that is interdisciplinary and grounded in three theoretical and conceptual bodies of literature:

- transformative learning
- socio-technical regimes and governance
- organizational culture and learning.

### Transformative learning

Capacity development, as defined here, is the process of improving the ability of AAS as a research-in-development program to achieve its gender-transformative goals in an effective, efficient and sustainable manner. Such capacity development involves strengthening social and gender-oriented capacities of and linkages among individuals and partners. To achieve this, we focus on transformative learning, which goes beyond acquisition of knowledge and skills and involves a shift in mental models and personal beliefs based on critical action-reflection cycles.

Transformative learning is not only about learning. It is also what Paulo Freire (1970) calls the “act of knowing.” “Gender-knowing” does not simply involve speaking about the reality of gender inequalities, but also recognizing their root causes and how these have accentuated the “unhelpful” behaviors and norms that maintain unequal social relations and gender inequalities.

The expansion of consciousness—collective and individual—is at the heart of transformative learning. Expanded consciousness is characterized by new frames of reference, points of view or mental modes. Transformation of the structure of consciousness is facilitated when learners are confronted with a complex cultural environment, because effective engagement with that environment requires a change in the learners’ relationship to their or the group’s identity (Kasl and Elias 2000).

Gender-related transformative learning processes need to consider the complexity of specific social, cultural and political contexts and manage their uncertainty. Safe spaces to promote learning and change must be generated by individuals and teams that cultivate intentional, sincere commitment and knowledge sharing. Connecting the self with others through spaces of critical reflection, experiential and transformative learning processes, and workplace strategies creates shifts in one’s own mental models, attitudes and behaviors. The objective is a significant transformation that entails overcoming previous ways we see the world by requiring individuals to uncover hidden views and ideas that do not allow them to change.

Individual agency is the capacity to make one’s own choices and to act. It is conceived from within, and involves both cognitive and behavioral aspects (Stromquist 1993). The cognitive aspect refers to the ability to understand the situation of inequality and reflect on and internalize ideas regarding acting against the causes that perpetuate this inequality. It involves learning about other ideas of gender relations and overcoming beliefs, norms and behaviors that structure powerful traditional gender ideologies. The behavioral aspect refers to the practice of masculine and feminine stereotypes that frame the way we interrelate and interact. Through the process of reflection and critical thinking, individuals become conscious that gender inequalities are socially constructed and therefore can be changed. This amounts to becoming aware of one’s own human and gender agency, self-autonomy and identity. In this way, individuals create an understanding of what GTA would mean in research, workspaces and daily life, and how they can support the creation and diffusion of new behaviors and fair relationships.

### Socio-technical regimes and governance: A multilevel perspective

A multilevel perspective identifies macro, meso and micro levels within societal systems. The macro level corresponds to the “landscape,” the meso level consists of “regimes” and the micro level refers to “ Niches” (Lachman 2013).

The social and gender landscape provides the context for transformation. Widespread norms and practices, especially dominant images of men and expectations of a certain type of masculinity, are characteristic of the landscape
level. The landscape and its norms represent macro-level trends and contextual drivers and barriers to change (Smith et al. 2005; Smith and Stirling 2010; Smith et al. 2010). Transitions happen in the context of norms and practices that have been institutionalized over time. This is the context external to AAS. In the societies where we work, masculine norms are deeply embedded in systems and structures.

A system of social structures and practices in which unequal power relations and harmful norms coexist is called a social and gender regime. Comprised of dominant institutions and technologies, a social and gender regime is the configuration of gender relations that construct various kinds of individual behaviors related to masculinity and femininity. The institutional setting and the culture and individual self-identities contribute to or affect the behaviors of individuals. These behaviors are invisibly ordered in terms of power and status. The system of gender relations and invisible norms therefore impacts behaviors, which simultaneously are reproduced through unequal positions. Gender regimes create the contexts for particular events, relationships and individual practices. These reproduce or depart from the wider societal pattern of the gender landscape. Gender landscape developments also put pressure on existing social gender regimes, which opens up opportunities for new regimes to influence the landscape. Likewise, micro-cultures of groups and individuals at different levels and with different roles and responsibilities influence the social gender regime. This organizational complexity of gender inclusion and exclusion becomes visible only if we can “see” gender as multidimensional, involving a variety of different kinds of relationships and processes.
A social and gender regime can be transformed or restructured deliberately. Through learning processes known as “rounds of gender restructuring,” convergence between the genders needs to occur to reduce the differences and inequalities between women and men. Learning processes are concerned not only with transformation, but with the way that transformation depends upon previous rounds of transition, so that layer upon layer of change is built up. The specificity of such layering of change is important here; a new round of restructuring that appears to have structural similarities will have different outcomes if it is built upon a different foundation. Contextual differences must be considered, because they can have an impact on subsequent rounds of restructuring.

As learning, critical reflection and novelties arise, elements become aligned and stabilize in a new dominant design. Internal momentum increases. When elements are aligned, a new configuration breaks through, taking advantage of the opportunities created by the learning process. The multilevel perspective calls for inclusive participatory processes by which diverse sets of actors meet, reflect, deliberate, and generate change and innovation (Loorbach 2010). Actors represent different interests and agendas, though they are open to debate and dialogue in the interest of transforming a regime.

Organizational culture and learning
Organizational culture is defined as the shared set of values, beliefs, language, practices and hidden assumptions that members of an organization have in common (Miron et al. 2004) and that govern the way they think about and act on problems and opportunities (Hofstede 2001). It embodies past experiences and learning and also defines the context for future learning and transformative processes (Sørensen 2002). A strong culture is characterized by an organization’s core values being both deeply held and widely shared.

Gender must be understood as embedded in our culture, structures, systems, processes and procedures, infrastructures, and beliefs, from...
individual to collective practices and behaviors. Each of these domains has to be understood as gendered, and together they constitute an important field in which gendered meanings, identities, practices and power relations are sustained (Newman 1995). Building internal capacity and organizational culture for gender research as we influence external settings (partners, communities and governments) depends greatly on the enabling environment.

An enabling organizational culture is a key feature of operational competency and effectiveness and should stimulate appropriate behavior, skills and attitudes among the organization’s staff members to accept gender and social equality as a basic value of the organization (Hartmann 2006). To facilitate this, GTA need to be embedded into the systems and structures of the organization itself and not only integrated into its research programs. By aligning the research program values of gender and equity with workplace values of fairness and equity, AAS will be better positioned to achieve its goals. Staff must reflect on why GTA would be necessary in their work and routines, who should be involved in effecting change (Rowe et al. 2008), and whether the organizational structures are favorable to support that change (Senge et al. 2005). Change needs to be reflected both in internal behaviors and external relationships (Siguaw et al. 2006).

The process of transformative learning and working collaboratively engenders leadership, commitment and ownership. Without these, effective integration of GTA will not happen, no matter how effective and innovative our methodologies, policies or mechanisms might be. Leadership is one of the most important factors for successful learning and culture change (Boga and Ensari 2009). For our purpose, leadership is understood as “leaders inducing team members to act for certain goals that represent the values and the motivations—the wants and needs, the aspirations and expectations—of both leaders and team members” (Burns 1978, 19). Leadership harmonizes purposes and encourages the goals of leaders as well as team members in mutual and reciprocal relationships.
The GCDOC conceptual framework is expressed through a multilevel, nested theory of change that aims to transform gender regimes. The theory of change starts with social and gender structures in which power relations and social dimensions determine opportunities for different groups. The forms that gender regimes take vary across time and space, culture and ethnicity, age and generation. They generate different forms of politics and of perceptions of group interests, which further affect the functioning of groups and organizations. Gender regimes are entrenched in behaviors and practices and influenced by the individual, the culture and the institutional structures. These regimes can transition into innovative gender-transformative regimes through learning processes.

In a first instance, these regimes can be transformed through being influenced by social and gender niches—small groups of individuals who are part of transformative learning processes.

Dominant power relations in the larger society in which AAS is operating are reflected and manifested through individual behaviors. Blended learning processes will be designed to influence the following dimensions:

- **Learned behaviors** – the way in which stereotypes are organized along gender lines, including the use of stereotypes in evaluating others and creating gender barriers. These behaviors are influenced by gender norms, which are societal attitudes internalized from childhood regarding which behaviors, preferences, products, professions or knowledge are appropriate for women and men.
- **Gender identity** – how individuals perceive and present themselves, and how others perceive them.
- **Cultural identity** – how individuals perceive the language and the symbols of gender difference and the prevailing values, beliefs and attitudes about gender in relation to culture in congruence with other social dimensions (religion, class, race, etc.).
- **Gender relations** – actual roles men and women assume and how they interact in a particular culture or social context. Working in highly segregated roles becomes marked with a presumed gender identity of a numerically dominant group.
- **Institutional setting** – how governance, political will, leadership and management, policies, budgeting, structures, and accountability are exercised along gender lines and disadvantage women’s and underrepresented minority groups’ participation.
- **Power relations** – how exercise of power, knowledge, cultural or religious diversity, and identities condition the position and interest of individuals.

Individuals are immersed in learning processes that help them acquire new knowledge and integrate it into their work at the same time as they are involved in spaces that allow them to reflect on and internalize what has been learned. Transformative results can diffuse more broadly to influence the social and gender landscape. The transformation occurs along different pathways at the individual, organizational and system levels. To support individual and collective transformative learning, catalytic support needs to be constant and strong throughout the organizational leadership. The system will be connected to and be part of larger networks of cultural and social change and transformation that are scaled out and up outside AAS. The enabling environment, which includes policies, budgets, leadership and accountability towards GTA, is the mechanism that will support the integration of GTA.

Blended learning processes take place in multiple dimensions. Individuals to be included are initially AAS staff and partners. They are the niche players with a clear interest in change and transformation of the current system, and have the expertise, knowledge and motivation to work for this change.
In summary, the current social and gender regimes change and are modified in innovative ways as a result of the influence of social and gender niches of innovation and learning. Basically, gender relations and norms become rationalized through the emergence of social and gender-transformative regimes. Transformative outcomes will be scaled out and up to the social and gender landscape (Figure 3).

**Figure 3.** Theory of change for a multilevel transition in AAS.
Learning processes that involve shifts in social and gendered “habits of mind” (Mezirow 2000) are needed at individual, organizational and systemic levels. The challenge, however, is to generate perceptions that can be translated into winning strategies to create learning that contributes to building a culture aligned with the new gender transformation-oriented agricultural research in development.

Simultaneously, people experiment with new behaviors to create more equitable roles and relationships at work, at home, with partners and in communities. What leads to action is the emergence of a sense of the “self,” which involves undoing internalized inhibition, developing critical consciousness, and understanding individual circumstances and the social environment.

Individual transformation

AAS has adopted a new paradigm: research in development. Part of this paradigm involves integrating GTA, a novelty in agricultural research. GTA challenge beliefs, assumptions, habits and paradigms that generate gender inequality, invisibility and exclusion. GTA not only enable individuals to recognize, address and analyze gender differences, but create the conditions whereby people can examine and undertake action on problematic aspects of gender norms and relations.

At this level, individuals strengthen their skills and knowledge, but most importantly, their intangible abilities: the ability to learn, cooperate, self-reflect and demonstrate consciousness in research in development. Individuals begin to demonstrate the willingness to learn and articulate interest in changing norms and adopting new behaviors (Morgan 2006). The outcomes of organizational change and capacity development processes that focus on GTA enhance personal capacities to learn, self-reflect, discuss values, and discover abilities and skills that transmit self-confidence.

Organizational transformation

An enabling organizational culture is critical for individuals to be able to deploy their existing or newly acquired knowledge within the organization and in research programs. It is important to recognize the significance of building individual capacity on the one hand and capacitated relationships on the other. Working as much with individuals and small groups as with the larger system is recommended in order to strengthen the culture across actors and scales in AAS.

Collective conditions need to be created whereby people can examine and act on problematic aspects of gender norms. What
leads to group action is an emergence of a sense of the “self” and a consequent demonstration of willingness to learn and articulate interest in going through collective change and adopting new behaviors (Morgan 2006) that value diversity and respect. Taylor and Jarecke (2009) argue that in order to support individual transformative learning, leaders in the organization should provide catalytic support for transformation toward alternative beliefs and behaviors.

In order to overcome gender inequality and barriers to success on gender integration in AAS, institutional aspects of the organizational change process must be considered.

Institutions are best understood as sets of formal and informal rules that are administered by organizations (North 2005). They determine who gets what, who does what and who decides. Distinguishing organizational change and institutional reform is critical: the former does not imply the latter, and if the latter is ignored, institutional constraints will undermine processes of change in the organization. Policies influence and shape the way people behave. Therefore, when we are designing efficient policies, the habits and practices of the people affected need to be considered (Mytelka 2000). (See Table 2.)

### TRANSFORMATIVE PATHWAY 1: Individual transformation

**OVERVIEW:** The first step towards achieving gender-transformative change is individual transformation. The emphasis is on self-consciousness and self-awareness to process and communicate ideas and outcomes related to gender equality. Internalization of gender inequality and its causes needs to be embraced from a personal perspective and then reflected on collectively. The individual is trained to integrate GTA in research-in-development initiatives and to observe the values of gender equality and diversity in institutional processes. Critical reflection and transformative learning are central to this change process. The individual is linked to the group in order to move from what “I used to do” to what “we need to do.”

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<th>AAS structure</th>
<th>Capacity area</th>
<th>Capacity outcomes</th>
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| Research programming| Capacity to integrate gender and GTA in research-in-development activities | • Individuals use GTA terminology with confidence, differentiating gender from women's issues.  
• Individuals easily transect gender with other social dimensions in research in development.  
• Individuals are able to utilize gender-disaggregated outcome indicators and differentiate these from sex-disaggregated data across scales.  
• Individuals are self-confident to communicate and relate in different socio-cultural spaces.  
• Critical reflection around gender norms and beliefs becomes a common practice for research and development practitioners. |
| Institutional structure | Capacity to observe and promote the values of gender equality and diversity in institutional spaces | • Individuals appreciate and practice the values of gender equality and diversity in AAS.  
• Individuals are confident to work in and for diverse socio-cultural contexts.  
• Individuals work and perform in a common organizational culture of diversity, collective action and equality.  
• Women are supported by an enabling environment of trust and interdependency. |

Table 1. Capacity areas for individual transformation.
TRANSFORMATIVE PATHWAY 2: Organizational transformation

OVERVIEW: Organizational transformation depends on how capable its members are to promote, sustain, support and reproduce changes within the organization. Collective learning and transformative leadership are key for this pathway.

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<th>AAS structure</th>
<th>Capacity area</th>
<th>Capacity outcomes</th>
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| Research programming | Capacity for gender transformative leadership in research in development | • AAS teams become skilled in organizational transformative learning and become gender-transformative leaders.  
• Collective capacity is built to integrate GTA in research-in-development initiatives.  
• Capacity is built to co-research in interdisciplinary initiatives and teams to integrate gender and social aspects into technical initiatives.  
• Relational and communication skills are developed to work in diverse groups.  
• AAS teams engage in knowledge sharing around integration of GTA in research-in-development initiatives.  
• AAS teams recognize and develop gender, social and technical expertise. |
| Institutional structure | Capacity to own and lead organizational culture change | • Organizational leadership for cultural change promotes equality and diversity.  
• Collective culture and behaviors promote gender equality and diversity.  
• GTA are institutionalized in AAS processes and structures.  
• Gender-transformative policies and practices are in place and implementation is monitored through participatory gender audits.  
• Processes and practices promote career opportunities for women and minority groups.  
• Gender-responsive employment policies and practices are in place in countries, tailored to local realities. |

Table 2. Capacity areas for organizational transformation.

System transformation

When integrating GTA in our work, the identity of individuals needs to be recognized as influencing the formation of the collective gender identity. The identity of the self is transformed from “I” into “we.” “Who we are” becomes the reference point for the system. Guidance from individuals who believe and transmit ideas and act in ways that show that change is possible is very important at this stage. Changes in both interpersonal relationships and the system are recognized to support the functioning of organizations.

Transformational leaders at AAS are above all enablers. They do not only look at the conditions in which we live—the practice of social and gender inequalities that reproduce norms for inequality and exclusion—but know how to change them. They facilitate transformation and empowerment. Bennis (1989, 70) states that “transformative leadership is the ability of the leader to reach the souls and hearts of others in a way that raises human consciousness, builds meaning, and inspires human intent that is the source of power.” Transformative leadership acknowledges that power is not simply an inspiring force, but is also a force that both implicitly and explicitly perpetuates hegemonic and dominating behaviors, norms and structures. New awareness of social and gender inequality not only leads to new approaches, but also to an increased understanding on the part of all staff of issues related to power and privilege. This understanding is manifested in group activities by making sure everybody is included.
The capacity of individuals to integrate, adopt and strategically contribute to the formation of new spaces in which social and gender knowledge can be shared, practiced and replicated depends partly on their own agency and partly on facilitation by their institutions. AAS considers ways in which systemic and organizational forms of activity such as research-in-development initiatives are stimulated through networking and innovation platforms to interrelate in ways that reinforce and enrich each other. Achieving this in practice is likely to mean finding a common language and creating a new vocabulary that incorporates the terminology of GTA. But most importantly, it is about enabling partners and communities to effectively adopt and integrate a gender-transformative approach into their research-in-development activities and everyday practices. This includes supplying staff and partners with the means to examine prevailing social norms and relations of power between women and men. The people in AAS are prepared to act and become transformative leaders in research and practice. This means that they integrate gender into their work and daily life activities through practices of social and gender equality and inclusion, especially when working in partnership or in an interdisciplinary way. They critique and analyze inequitable practices and offer the promise not only of greater individual achievement but also of a better life lived in common with others (Table 3).

### TRANSFORMATIVE PATHWAY 3: System transformation

**OVERVIEW:** In the transformation of the system, individual understandings in relation to gender identity facilitate the emergence of shared understandings, which transcend an institutionalized reality to become a social reality. Selves are left behind, to be considered as part of a social structure. This structure includes interactions, roles, relationships, collective purpose, and taken-for-granted beliefs, attitudes and behaviors. The role of influential staff members in increasing gender identity is recognized. Changes in interpersonal relationships and the system are recognized to support the functioning of organizations. Transformative leadership seeks to challenge and rework people’s narrow conceptions of gender and address the causes of gender inequality through problematizing, analyzing and restructuring the underlying frameworks that generate such inequalities. They also build advocacy and convergence in response to pluralistic sets of social and gender values.

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<th>AAS structure</th>
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<th>Capacity outcomes</th>
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<td>Research programming</td>
<td>Capacity to lead, relate and network for gender-transformative outcomes</td>
<td>• Sound partnerships and alliances are built for knowledge sharing and collaboration for collective impact and are adequately resourced and monitored for results.</td>
</tr>
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</table>
|                     | Capacity to communicate, share and influence transformation-oriented research-in-development experiences at local, national and regional levels | • Vibrant alliances actively exchange learning, knowledge and good practices.  
• Evidence base around gender equality at local, national and regional levels is strengthened.  
• Evidence-informed policymaking exists at local, national and regional levels. |
|                     | Capacity to influence local and national policies and institutional arrangements | • Gender-transformative achievements influence policy and institutional reform and policymaking at local and national levels. |

Table 3. Capacity areas for system transformation.
Learning processes need to be accessible and manageable to the wider range of learners. In AAS, levels of gender knowledge vary according to staff members’ roles and responsibilities. On the one hand, some members of the staff have a key role (gender researchers in specific countries), and they need to have a profound understanding of gender in order to apply it to the work and research they are engaged in. They contribute to all initiatives and projects implemented in AAS countries and hubs. On the other hand, some scientists design projects and programs. Still others are involved in implementation and work directly with partners and communities. The skills and capacities needed vary according to the job description. However, a basic understanding of GTA is required for everybody to perform satisfactorily.

In AAS, learning will follow the six levels of cognitive domain as described in Bloom’s taxonomy (Bloom 1994). (See Figure 4.)

Table 4 demonstrates how this taxonomy translates into gender-related learning in AAS.

Logically, not everyone will reach the maximum level of learning; this will depend on the position and role they play in their work. However, transformative and experiential learning will challenge structures of reference and sets of fixed assumptions and expectations (habits of mind, perspectives on meaning, and mindsets), prompting individuals to become more inclusive, discriminating, open, reflective and emotionally able to change. Such enhanced frames of reference are better than others because they are more likely to generate beliefs and opinions that are demonstrated to be more true or justified in guiding action (Merriam et al. 2011) according to the role individuals have or need to have.

The blended learning methodology

Gender-focused training approaches by themselves have not consistently yielded good results in agricultural research for development. New knowledge and practices are necessary when considering the integration of GTA into agricultural research in development. New,

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**Figure 4.** Bloom’s taxonomy.
In the learning process, individuals reflect on GTA and their significance in contextualized research programming and the workplace.

- **Answering knowledge questions** helps recall earlier learned gender-transformative material, facts, terms and basic concepts.
- **Answering comprehension questions** helps show understanding of gender-transformative facts and ideas by describing, explaining and stating main ideas.
- **Answering application questions** helps solve problems by using gender knowledge in old and new situations.
- **Answering analysis questions** helps examine how GTA can be applied in research programs and at the workplace, distinguish and categorize the significance of gender-transformative issues, organize and distinguish new gender knowledge and skills, and classify knowledge to adapt and apply to work activities.
- **Answering synthesis questions** helps put gender information together in a new way to build new gender knowledge, illustrate gender equality issues from a different point of view, or propose an alternative solution to a problem.
- **Answering evaluation questions** helps defend and justify beliefs, make informed judgments, and draw conclusions across various socio-cultural and economic contexts around gender equality.

**Table 4.** Applying Bloom’s taxonomy to gender-related learning in AAS.

Emerging forms of learning are necessary to influence the quickly evolving, complex, socially constructed and action-driven realities of AAS and the communities that we work with. Understanding how to learn *in, from and for* action is vital. Wilson and Biller (2012) state that in addition to the traditional forms of learning (learning for action), there is a need to include learning initiatives that focus on learning while at work (learning in action). Also, learners reflect on work experiences to learn from what happened (learning from action). (See Figure 5.)

AAS teams will engage in learning activities that help them to acquire new knowledge, apply the knowledge in practice, and internalize gender and gender-transformative issues. Then, they will be able to share their new knowledge through reflective spaces where discussion and dialogue are stimulated. Individuals not only need to retain new knowledge and skills, they also need time to think about how to incorporate new gender knowledge into their previous understanding.

Transformation is a progressive and iterative process. The methodological approach being proposed for GCDOC has a strong blended element, using a learning methodology that focuses on change at different scales (individual, organizational and system). Also important is learning to “unlearn” in order to move away from previous mindsets and practices. This process is in line with the single, double and triple loops of learning described by Argyris and Schön (1996).

**Learning for action** will focus on development of knowledge and skills on key topics adapted to the context. This corresponds to *single-loop learning* and involves obtaining new information in relation to gender and integrating it into present behavior. The modalities used for this purpose could include information-sharing events, seminars, formal training and workshops.

**Learning in action** will focus on application of the acquired knowledge and skills through participatory action research and action learning processes in research-in-development initiatives. This corresponds to *double-loop learning*, which involves critical reflection in order to see gender inequality from a new angle. Individuals understand why a specific solution works better than others to solve a problem or achieve a goal. Double-loop learning helps individuals to adjust their values or underlying assumptions, often resulting in redefinition of intended goals.
Learning from action supports individuals to identify and develop work on challenging gender areas within research-in-development initiatives. Corresponding to triple-loop learning, this represents structural self-examination and self-actualization in relation to ourselves and the world we live in. At this level transformational learning happens. It involves a move to a new, inclusive way of thinking and acting. It involves not only changing our thinking, but also changing how we see and experience ourselves in terms of gender beliefs and perceptions. This can be achieved through targeted support in the form of coaching, mentoring and use of learning platforms.

The blended learning approach will help integrate formal learning for action into the other two temporal phases of learning. This approach also allows for more time and application of formal learning in the workplace and can strengthen and support peer-to-peer interaction (relationships) so that learning happens more readily throughout all three learning phases (Figure 6).

The cascade coaching approach

A rapid facilitation methodology will be applied to support the blended learning that is appropriate to learners from different educational backgrounds. The approach is conducive to adult learning, enabling quick assimilation and good capacity to coach others.

The “cascade coaching approach” is a rapid facilitation replication method that initially works with core gender champions. Individuals become familiar with issues of gender and GTA and their integration into research programming and the workplace at the same time as they become skilled coaches in GTA regardless of previous or no gender knowledge and experience. The first phase of the learning process will be delivered to prospective core champions by a senior coach on gender. The next level of coaching will be provided by these core gender champions, who will be reviewed by other beginners (Figure 7). The processes will enable individuals to become familiar with the content and methodology of the blended learning approach and associated tools. There will be constant peer review through the process, so coaches and learners will get constructive feedback.
First-level learning process: For 10–12 core gender champions in each country or hub. The learning process will be facilitated in countries through blended learning tools.

Second-level learning process: Country or hub-based learning of 20 AAS staff and key partners.

Third-level learning process: Partner and community-based learning within each of the research-in-development initiatives in the hub or bilateral program.

Fourth-level learning process: AAS staff members and partners enable learning groups on GTA in AAS communities as part of the participatory action research processes. Groups are assisted simultaneously, leading to speedy saturation of the community with gender-related knowledge. In addition, people inside and outside the communities will be exposed to information through interactions with people who have been involved in the blended learning approach.

Figure 7. The cascade coaching approach.
The GCDOC activities require thorough planning that not only includes the right people but also develops the right capacities and skills at the right time and over time. The initiatives are conceived as ongoing strategic commitments. Planning for the GCDOC approach involves a typical project cycle, from the initial analysis to implementation and evaluation. The major stages are analysis, design, development, implementation and evaluation.5

The first stage includes an analysis of the current situation of the organization, partners, individuals and teams; the identification of capacities to be strengthened; and the general objectives to be accomplished. This stage starts with an organizational self-analysis of resources and skills, as well as an analysis of the environment in which the program operates. (See Annex 1 for an example of organizational self-analysis done for AAS using a “strengths, weaknesses, opportunities, threats” approach, based on the inputs from a gender scoping study conducted in 2013.) The second step consists of analyzing individual and organizational roles and responsibilities. The development of the general outcomes, goals and objectives will then lead to the more specific identification of the capacity areas and outcomes needed for each transformative pathway we want to achieve for the individual, organization and system. Finally, the development of a niche will help marry the needs of individuals and teams with the abilities and potentials the program brings in terms of resources, expertise and skills to meet these needs and expectations. The learning characteristics of individuals involved in the capacity-development activity will be collected, and this information will be used to monitor progress. The information will also help in classifying particular needs according to roles, responsibilities and job descriptions in the context of the country and/or hub. The responses will help with the planning and designing of the learning intervention.

As illustrated in figure 8, the outputs from each stage are utilized in subsequent steps. Across all stages but especially during implementation, activities are monitored and evaluated to determine whether the objectives have been met and whether further learning processes are necessary. Monitoring and feedback are iterative. Opportunities are presented to collect information when a major decision is made. This will help to continuously verify that the learning processes or activities are working. There is also an opportunity to amend the activity and find ways to make clear the directions or to introduce a new exercise to achieve satisfactory results.
Figure 8. GCDOC project process.
The learning processes will take place in the five program countries and headquarters (Malaysia) where AAS operates. The coaching cascade approach is the vehicle to reach teams and individuals in AAS. Given the complexity of the program, the design of the learning activities will be through the different groups identified based on Bloom’s taxonomy, illustrated in Figure 4 above. The content of the learning process will begin with simple and general notions of GTA. These will become more complex and more specific as they reach individuals who need more expertise and knowledge of GTA. We need to consider the following principles while designing, developing and implementing the learning activities:

- Learning processes consider gender capacities of individuals, the improvement of capacities for organizational effectiveness, the organizational culture (norms, values, behaviors and practices) and the enabling environment (structures) that support the implementation of gender equity in the program as well as capacity strengthening for influencing actors outside of AAS.
- The GCDOC activities are context relevant and context specific. Deeper individual and team understanding of the context is fundamental to the identification and applicability of GTA in these contexts. We have to be aware that gender realities are different among countries, regions, hubs, communities and even groups inside a community. Processes that work in one context may not be as successful in others.
- Levels of learning will vary according to individual roles and responsibilities. These will range from simple to more complex. The methods and tools utilized for the learning processes will fulfill these expectations.
- Internal leadership and ownership have to be supported throughout learning processes. The GCDOC approach is an endogenous methodology and will only succeed through long-term processes as a result of the interest and commitment of individuals, mirrored by teams’ ownership and leadership. While the activities take place, gender champions should be identified. These actions might lead to slower implementation of the learning processes, but ultimately, they will yield value.
- The achievement of the desired transformation through GCDOC calls for long-term perspectives. Short-term activities should contribute to long-term learning and change strategies. It is also necessary to facilitate the continuity of long-term relationships that can make valuable contributions to success and enable collective gender capacities.
1 AAS is led by WorldFish, the International Water Management Institute and Bioversity and works in collaboration with a large number of global and local-level research and development partners to design and implement an agricultural research-in-development agenda to address development challenges related to aquatic agricultural systems identified by the communities.

2 At the individual level, agency is the capacity of an individual to act, independently make choices and impose these choices on the world. Agency is related to competencies and skill development. The capacity to aspire—that is, the culturally formed capacity to envision alternatives and pursue different futures—is crucial in the concept of individual agency.

3 Collective agency is the process of increasing the capacity of groups to make choices and transform those choices into desired actions and outcomes to improve the efficiency and fairness of organizational and institutional contexts. Strengthening the group means improving its power position with regard to others (Leeuwis 2000).

4 Core gender champions are those individuals (staff members and partners) who voluntarily decide to be part of the first level of the learning activities delivered through the blended learning approach. They will become skilled gender coaches for the second level of the learning process.

5 Analysis, design, development, implementation and evaluation is a five-step learning design and project management tool called ADDIE borrowed from the field of human performance technology (Rosenberg et al. 1999).


## ANNEX: SWOT EXERCISE FOR ORGANIZATIONAL SELF-ANALYSIS

### Strengths
- AAS integrates multiple disciplines—it is interdisciplinary.
- AAS is an oriented system program that includes diverse stakeholders and structures.
- The research-in-development approach gives space to support people to reflect and act to overcome development challenges.
- Gender is at the forefront of our work.
- AAS has a constituted gender team (globally).
- Senior leadership supports gender integration in programs (main priority).
- Professional and organizational development leadership program is well established.
- Professional and organizational development and human resources departments support gender and diversity values and practices in workplace (hiring, professional development).
- Participatory action research processes are well established in hubs and countries—endogenous development and people centered.
- AAS staff members are eager to become familiar and capable with GTA.

### Weaknesses
- Country and hub specificities (social context and policies) do not always go with gender-transformative ideas.
- Staff members and partners need to have common gender knowledge and capacities to identify gender-transformative outcomes.
- Integration of GTA into participatory action research processes is still weak.
- GTA need to be adapted to the context (language, semantics, translation, etc.).
- Partners, experience on GTA very diverse (from weak to very strong).
- Gender technical and soft skills as well as capacities are still weak in the organization.

### Opportunities
- Participatory action research processes are well established in hubs and countries; endogenous development and people-centered approach can facilitate spaces for reflection and learning.
- AAS staff members have interest in becoming familiar and capable with GTA.
- Global leadership commitment facilitates the implementation of GTA in countries and hubs.
- Many activities are taking place in relation to gender and diversity in countries and hubs.
- Gender research analysts are working hand-in-hand with country and hub staff members and partners.
- Staff members and partners come from diverse cultural and social groups, which facilitates the idea of organizational culture and values.

### Threats
- Staff members and partners have little experience and familiarity with gender analysis and monitoring and evaluation.
- Country policies and legal framework could hinder integration and implementation of GTA in research-in-development initiatives.
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Approximately 500 million people in Africa, Asia and the Pacific depend on aquatic agricultural systems for their livelihoods; 138 million of these people live in poverty. Occurring along the world’s floodplains, deltas and coasts, these systems provide multiple opportunities for growing food and generating income. However, factors like population growth, environmental degradation and climate change are affecting these systems, threatening the livelihoods and well-being of millions of people.

The CGIAR Research Program on Aquatic Agricultural Systems (AAS) seeks to reduce poverty and improve food security for many small-scale fishers and farmers depending on aquatic agriculture systems by partnering with local, national and international partners to achieve large-scale development impact.

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