

# The Impact of Socioeconomic characteristics on Empowerment of Bedouin women in Egypt

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## Introduction:

Women empowerment is a process by which women challenge gender-based discrimination in all societies. Undoubtedly, the vast majority of women in the agricultural sector in developing countries suffer from limited access to credit and resources, income control, and production-related decision-making although they mostly play triple roles (Moser,1993): (1) Reproductive Role; comprises childbearing/rearing responsibilities and domestic tasks undertaken by women, required to guarantee the maintenance and reproduction of the labor force; (2) Gender Productive Role; comprises work done by both women and men for payment in cash or kind. It includes both market production and subsistence/home production; (3) Gender Community Role comprises activities undertaken primarily by women to ensure the provision and maintenance of scarce resources for collective consumption, such as water, health care and education. It is voluntary unpaid work, undertaken in 'free time'.

In Bedouin communities in Egypt, traditional culture and values restrict the mobility of women and girls; although they participate in their families via some specific farming activities such as harvesting figs, gathering wild Medicinal and Aromatic Plants (MAPs), and herding sheep.

This paper aims to measure Women Empowerment in Agriculture Index (WEAI) in Bedouin communities on the North Coast of Egypt through: (1) capturing differences between women and men empowerment, (2) analysing the inadequacy of the main five domains of empowerment (5DE), and (3) identifying the socioeconomic independence variables affecting women empowerment.

## Women's Empowerment in Agriculture Index (WEAI)

WEAI is a newly developed index to measure the multi-dimensional aspects of women's empowerment and gender inequality in agriculture (Alkire et al, 2013). WEAI consists of two sub-indices. The first assesses the degree to which women are empowered in five domains of empowerment (5DE) in agriculture. It reflects the percentage of women who are empowered<sup>49</sup>. These domains are (1) decisions about agricultural production, (2) access to and decision-making power about productive resources, (3) control of use of income, (4) leadership in the community, and (5) time allocation<sup>50</sup>. The second sub index is the Gender Parity Index (GPI) which reflects the percentage of women who are empowered or whose achievements are at least as high as the men in their households.

## Sampling

The total sample size includes 330, households (hh) with dual adults accounting for 55 families, average family size is 6 individuals, females account for 150, represent 45.5% of total sample size while the 180 males represent 54.5%.

## Results and Discussion

### Socioeconomic Characteristics of the Sample

1. Age structure: total sample size is 330; females represent 45.5% of the total sample size, while males represent 54.5%. Children under the age of 15 represent 11% and 12% for female and male respectively. The population in the 15-45 age category is approximately 40% and 44% for female and male respectively.

<sup>49</sup> A woman is considered empowered if she is considered adequate in 4 out of the 5 domains or has a score of at least 80% adequacy in the 5DE (Alkire et al, 2013).

<sup>50</sup> The 5DE are measured using 11 indicators with their corresponding weights

Population in the 46-60 age category is approximately 35% and 36% for female and male respectively. Population in the over 60 age category is approximately 14% and 8% for female and male respectively. Women and men belonging to the labor force category represent about 75% and 80% respectively.

2. Marital Status: 70% of adult females are married, 23% are single, 3% widowed, and 4% divorced. The vast majority of adult married men have one wife, and 13% have 2 wives or more.
3. Household Size ranges between (6-10) members with an average 6 members/ family. Although all families are extended (grandparents, parents, children, in addition to other relatives), all surveyed beneficiaries have their own home (parents and children).
4. Education: illiteracy rate is considered very high as it stands at approximately 90%, 81% for female and male respectively. Literate women and men possess only the primary school level of education.
5. Economic Status: Agriculture is considered the main activity in the surveyed sample; it represents about 79% of income, while non-farm sources represent about 21% of income. Agricultural wages that come from working in the field of other farms by daily wage or grazing sheep for others represent about 20%. The income comes from cultivating the own properties and breeding livestock represent 40%, 35% respectively, and the income from handcraft by traditional loom represents about 5%. Women income share represents about 15% of total income although

they participate in most income generation activities for their families but men who earn money except some money women get it from selling poultry (egg and chicken) in addition to selling handcrafts carpets (Hawaya).

6. Household Expenditure: 75% of total earned income is expended on food items, while 25% is expended on non-food items (transportation, cigarettes, education, health...).

## 5 Domains of Empowerment (5DE):

### Agricultural Production

1. Input in Productive Decision  
This indicator mainly identifies 4 agricultural production activities: food crop farming, cash crop farming, livestock raising, and fish culture. 40% of Bedouin women in the Almakala sample participate in some (not all) decisions in 2 activities (1) food crops farming such as barley and wheat which are considered essential food reserves used in baking bread, (2) rearing small livestock such as poultry, sheep and goats. They also feel they were able to participate in 2 decisions to at least a medium extent: (1) agricultural production in which they are the main workers in harvesting the main cash crops such as figs and watermelon, (2) raising small livestock which they consider to be private female home possessions.
2. Relative Autonomy Indicator (RAI)<sup>51</sup>  
This indicator examines the real motivations behind decision-making linked to 5 activities: agricultural production, input purchase, types of crops, marketing, and raising livestock.

<sup>51</sup> Motivations of RAI : External, introjected, and intrinsic .The conventional weights are (-2) for external, (-1) for introjected, and (3) for intrinsic motivations. The indicator ranges between (-9), (9).

3. 90% of Bedouin women in Almarktala have some level of input to decision-making in 3 activities: (1) agricultural production, (2) raising livestock, and (3) selecting the type of crops. The results show that women always act according to their own intrinsic values in making agricultural production decisions and raising small livestock to participate in income generation for their families. Marketing and input purchase are male activities in which traditions prohibit women from going to market to sell or purchase commodities and inputs.

### Resources

1. Ownership of land and assets  
90% of Bedouin women have sole ownership of some assets such as small livestock and cell phones, and they have joint ownership of large and small household durables. Although the Egyptian constitution states that all citizens have equal public rights and duties without discrimination of sex, ethnic origin, language, religion or creed, local traditional culture in Bedouin communities prohibits women from owning farm land, equipment, and large livestock. In Islam women also possess independent legal, economic and spiritual identity, and independence (16)(18) but unfortunately, rural women generally and Bedouin women specifically are blocked from receiving inheritance from their parents. Widowed women also experience shame in asking for their rights to their husband's agricultural land or other properties. In Matrouh Governorate there are a few cases of widowed women asking for their inheritance through the customary legitimacy committee in mosques in Matrouh which forces the opponents to deliver the disputed land and other properties to the women according to Sharia.
2. Decisions Regarding purchase, sale, or transfer of land and assets  
90% of Bedouin women are adequately involved in making decision of purchase, sale or transfer of only small livestock as poultry in addition to cell phones.

3. Access to and decision about credit  
The vast majority of Bedouin households in the Almarktala sample don't use credit from formal organizations as they believe that borrowing and lending money with interest rate are religiously prohibited, but about 5% of women have adequate access to and decision-making capabilities about credit from rotation saving and local development associations.

### Income

Although women participate in most farm activities such as harvesting cash crops and food crops, and some non-farm activities such as producing traditional loom handicrafts, 80% of Bedouin women in the Almarktala sample only have control over the use of the income generated by raising small livestock such as poultry, sheep and goats. Women cannot ask for wages for work on the family farm, so all farm activities are considered unpaid work. Bedouin women also feel they are able to participate in minor expenditure decisions to at least a medium extent.

### Leadership

This indicator includes: association membership, speaking in public, and family dispute resolution. 10% of Bedouin women in the Almarktala sample have group membership, as they have membership in local community development associations of the social affairs directorate. With regards to the speaking in public indicator, Bedouin Women are restricted by traditions from effective integration into society, so they may have nominal membership but don't participate in meetings and decisions. 3% of elderly Bedouin women have adequate input in family dispute resolutions related to girls' education and marriage.

### Time

1. Workload  
77% of Bedouin women have adequate manageable workloads that they work 10 hour/day<sup>52</sup> distributed among only daily work: Cleaning and rearing children (3 h/day),

<sup>52</sup>The individual is defined as adequate on workload if the number of hours he /she work per day is less than the time poverty line (10.5 h in previous 24 hours).

fetching potable water (2 h/day), cooking (3 h/day), home breeding of sheep and poultry (2 h/day). Seasonal and non-daily work add heavy burden on women as harvesting water melon, figs, wheat and barley (5 h/day) for each season time in addition to 4-5 h/month for each handicraft piece. Planting, irrigation, and pruning are the main farm activities for men (4 h/day/each season), open grazing (2-3 h/day), marketing for crops and production inputs (3h/day/season), so men work for (9-10) h/day but this work is considered as seasonal work

and they display inadequate achievement in 59.3% of domains. Disempowerment index is 0.178, and empowerment index is quiet high at 0.822.

$H_{GPI}$  shows that 75% of women are deprived of gender parity with the men in their households,  $I_{GPI}$  shows that the average empowerment gap is seriously high at 0.95%, so the Gender Parity Index GPI is quiet low at 0.282, and total women empowerment in the WEAI agriculture index yields a fairly average score of 0.553.

2. Leisure  
81% of Bedouin women have adequate leisure time distributed among visiting relatives, watching TV, and listening radio<sup>53</sup>.

### Women Empowerment in Agriculture Index (WEAI)

Table (1) shows that 52.7% of Bedouin women in the Almarktala sample are not yet empowered and display inadequate achievement in 79.2% of the domains. The disempowerment index is 0.417, and empowerment index for women is 0.583. Male results show that only 30% are not yet empowered

Item	Women	Men
Number of observations(n)	150	180
Number of disempowered(q)	79	54
Disempowerment Headcount ratio(HP)	52.7%	30%
Intensity of Disempowerment(AP)	79.2%	59.3%
Disempowerment Index Mo	0.417	0.178
Empowerment (5DE) Index (1-Mo)	0.583	0.822
%Women with no gender parity ( $H_{GPI}$ )	0.75	
Average empowerment gap( $I_{GPI}$ )	0.95	
Gender parity Index	0.282	
WEAI	0.553	

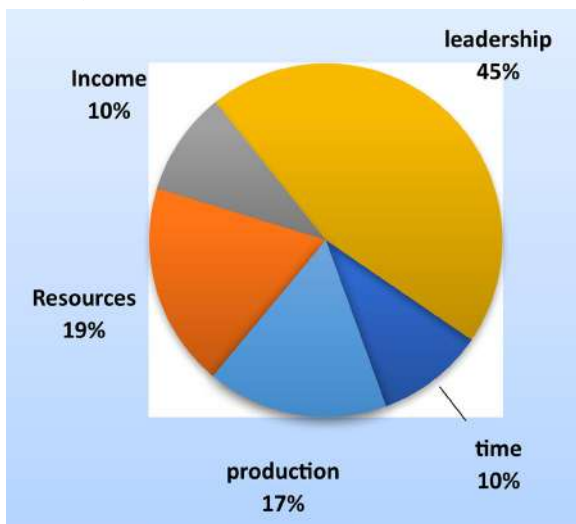
Table (1) Bedouin Women WEAI in Almarktala Sample  
Source: calculated by the author from sampling

<sup>53</sup> The respondent is adequate if his or her satisfaction rank is equal to or higher than 5.

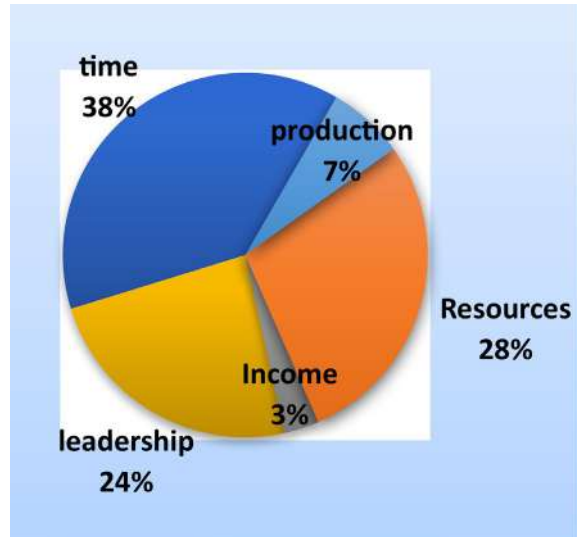
## Decomposition of women and men disempowerment by domain

Fig (1) shows that the domain of fragile leadership is the highest source of disempowerment; it contributes to 45% of women's disempowerment index. The vast majority of women in the sample don't have effective membership of any local association, don't have the ability to speak in public, and don't participate in family dispute resolutions. The second domain is poor access and control over resources (19%). Little input in production decisions is the third rank of disempowerment (17%) followed by time inadequacy (10%) and little control of income (9%).

For men, fig (2) shows that the domain of time is the highest source of disempowerment; it contributes to 38% of the male disempowerment index, as their workload is above the poverty line (10.5 h/day) in seasonal work. The second domain is poor access and control over resources (28%) as they are deprived from sole or joint land and asset ownership. The third domain is fragile leadership; it contributes to 24% of the male disempowerment index, followed by little input into production decision-making (7%) and little control of income (3%).



Fig(1) Decomposition Women Disempowerment by Domain



Fig(2) Decomposition Men Disempowerment by Domain

## The impact of individual and household characteristics on women empowerment

The paper examined the impact of the following characteristics on women empowerment:

Woman age ( $x_1$ ) for 3 categories; young women (15-25), average age (26-45), and elderly (46-60). Education level ( $x_2$ ) for 2 categories; reading and writing for illiterate and literate women. Household income level ( $x_3$ ) for 3 categories; (high>L.E. 20000/year), (medium L.E. 15000-20000/year), and (low<L.E. 15000). Relative autonomy index (RAI) of decision making in hh expenditure, protection from violence, family planning ( $x_4$ ). The results show the expected value of empowerment for literate young women (15-25) living without RAI in high income households is 0.315.

The empowerment scores significantly increase to 0.375 if the woman is in the middle age category and increases to 0.435 if she is elderly. The expected value of empowerment scores significantly

decreases to 0.248 for illiterate women. The score significantly decreases also to 0.195 for women living in medium income households. The score of empowerment significantly increases to a high degree (0.765) for women who have RAI in decision-making in hh expenditure, protection from violence, and family planning.

### **Recommended Intervention:**

Designing national agricultural programmes in consideration of women's inadequate access to credit to purchase land or farm inputs, which can increase women's assets and reduce the gap with men.

### **References**

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