13

Women Leaders in Indian Agriculture: Grassroots Perspective

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I have brought about change in farming practices within my village. Instead of broadcasting of seeds, they now use line sowing or dibbling. This has resulted in higher yields for them. There are 150–175 farmers in my village, who now, on their own, practice this. (Asha Devi, personal communication, August 25, 2016)
—Asha Devi, a farmer and *Krishi Sakhi* [agriculture service provider] from *Dausa, Rajasthan*

Asha Devi, a young woman from rural Rajasthan, is the face of thousands of such women from the rural hinterlands of India who are the leaders in their villages, SHGs (self-help groups), SHG clusters, or federations. (An SHG is a group of 10–20 members—typically women from similar class and region, though there are mixed and all men SHGs also—for first six months, saving regularly and landing within the group, is subsequently

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linked with a bank for borrowing larger sums to facilitate livelihood enhancement. A village can have multiple SHGs and these SHGs (15–50) come together to form a cluster with one or two representatives from each SHG. Several clusters are federated into an SHG federation.) There are many such women playing influential roles in agriculture and allied activities in the village or a group of villages. Not all women in India are fully empowered to play leadership roles across many spheres. We applaud the leadership roles women are playing at the grassroots in agriculture and the factors that have facilitated the emergence of their leadership.

Though the prime focus of this chapter is cases of women leaders in agriculture, the theme of this chapter necessitated a review of the literature on a wide range of themes, including agriculture and agriculture value chains, women in agriculture and agriculture education, and leadership and gender. I began my search of current literature on databases such as EBSCO, JSTOR (Journal Storage), and Google Scholar and found the research-based literature available on the theme to be inadequate. I searched Google-generated government reports, statistical information, and studies and reports of Indian and international non-government development organizations (NGDOs) that are relevant for the chapter. The core of this chapter hinges largely on the primary data collected personally and through former students working in agriculture and related sectors located in different Indian states.

The chapter begins with an introduction to Indian agriculture and women in agriculture, followed by discussion of leadership, highlighting the Indian context of leadership and women in leadership. The next section focuses on women leaders in agriculture, based on an analysis of the cases and includes characteristics and styles of the leaders, their impact on the society and economy, and the challenges they face. The chapter ends with a conclusion and recommendations for researchers, practitioners, and policymakers.

Indian Agriculture and Women

Agriculture is a huge sector in India, ranking second in terms of production in the world, having over half of the nation's population dependent on it as a major source of income. It supports 17% of the world's

population, 15% of the world's livestock, and accounts for 14% of the country's gross domestic product (GDP) and 11% of its exports (Government of India [GoI], Ministry of Agriculture, 2012–2013). The sector includes horticulture, livestock, dairy, fisheries, agro-forestry, and agro-processing. Given this wide range of sub-sectors, it would be beyond the scope of the chapter to discuss specific roles women play in the value chains of each sub-sector.

Of the total working population in India, 87% are in villages; 97% of all the cultivators and 95% of all agriculture labor in India belong to rural areas (Centre for Monitoring Indian Economy, 2011). Furthermore, due to fragmentation of agriculture lands, agriculture in India is done by masses—mostly small and marginal farmers (less than or equal to two hectares of land).

This predominantly rural and family farming is also being feminized as is evident in the increasing number of women agriculture labor, moving from 25.6% in 1961 to 43.4% in 2001 as against "the increase from 16.2% to 27.4% for men over the same period" (Garikipati, 2008, p. 630). According to a more recent study (Mishra, 2016), 74% of India's rural women workforce is engaged in agriculture as against 59% of men's workforce; however, only 12.7% of rural women have operational land ownership, resulting in women working as unpaid subsistence labor on family farms or as paid labor. Thus, this feminization is primarily for agriculture labor, as landholding by women is significantly lower than that by men, as is the case with many of the developing countries of the world (Food and Agriculture Organization of the United Nations, 2016). The trend of feminization of agriculture labor is not likely to have changed much for India since the Census 2011 that found that the total number of women workers in rural India was 121.8 million, and 35.9 million women were working as cultivators, whereas 61.5 million were agricultural laborers (GoI, Ministry of Labour and Employment [MoLE], 2015). The same document also indicates that the work participation rate of women in rural areas has remained almost the same during the decade. It was 30.79% in 2001 and has marginally declined to 30.02% in 2011.

"Domestic work burden, lower mobility, lesser education and fewer investable assets" (Agarwal, 2002, p. 2) are some of the disadvantages that women have inherited from cultural tradition. These disadvantages, coupled with society's patriarchal nature, have led to societal norms

embracing negativities, such as lack of entitlements over productive assets (women not having legal ownership rights over any productive assets like land or cattle, in spite of legal provisions for such entitlements) and deeply entrenched societal norms have deprived women of these rights, leaving such women devoid of economic power and financial controls, making them perpetually dependent on men. These have prevented women for a long time from assuming leadership roles. Thus, although feminization of agriculture has ushered in the presence of many women, they still do not figure at the center of agriculture. Women's land rights are mostly neglected in policy and research, and positive changes in policies and legislation suffer from neglected implementation.

The Bodhgaya Movement of the late 1970s showcased how women were able to fight for land rights, how the largely illiterate peasant community discussed at length the wide range of women's issues, and how they reached agreement to have land titles in the names of women (Agarwal, 2002). The Bodhgaya Movement shows that the scenario has begun to change, albeit slowly, with efforts from multiple players, such as committed and enlightened functionaries of NGDOs, active government agencies and their programs, and the courageous women farmers themselves.

Agriculture Education

Unlike agriculture in the Indian economy, agriculture education does not seem to enjoy a corresponding treatment, especially at the undergraduate level. Of 754 universities and 41,057 colleges and institutions that responded to a survey on the state of higher education, only 64 were agriculture and allied universities (Government of India, Ministry of Human Resource Development, 2015). Only 0.93% of all students enrolled were studying agriculture at the undergraduate level, and agriculture was among the three sectors having the lowest women's participation with 26.38% of all students enrolled in agriculture. Of all undergraduates, only 0.93% were in agriculture and allied sectors; however, the proportion rose multifold to 3.83% at the Ph.D. level. At the Ph.D. level, enrollment of women improves to 37.78% of all Ph.D. students in agriculture. Several reasons seem to be behind

this phenomenon, including agriculture being a second preference (only after medicine) for most women, jobs after graduation being predominantly field-based, and further higher education providing options of urban jobs, mostly in research and development, agri-financing, and academics. Despite increased enrolment at higher levels in agriculture education, the absolute enrolment of women in agriculture education has seen a marginal drop at the undergraduate level from 38.3% in 2013–2014 to 37.7% in 2015, as well as at the Ph.D. level, dropping from 27.4% in 2013–2014 to 26.38% in 2015–2016.

Agriculture Value Chain

A value chain is reflective of the complete range of activities required to produce and add value to a product or service, from its production to the final consumer. Agri-value chains are complex, and details of value chains are unique to their corresponding product or service. A typical generic agriculture value chain would include four major elements: inputs, production, processing, and marketing, each with its own sub-elements, as depicted in Fig. 13.1. If the large number of small and marginal farmers are included in the agri-value chains, social mobilization as a value chain enabler becomes critical. Social mobilization is a process of helping people learn to take charge of their lives. Women leaders in agriculture, as the cases in this chapter depict, play a very significant role in helping cultivators improve their socio-economic status through improved agricultural practices.

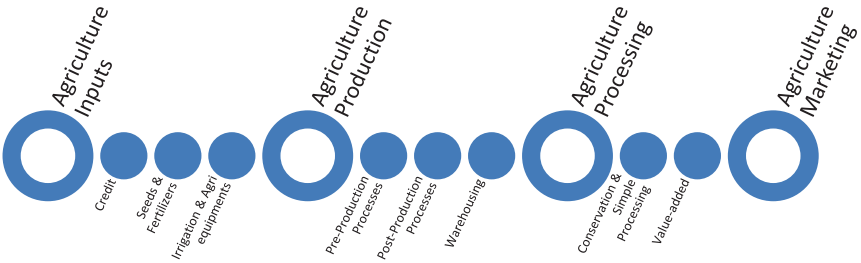

Fig. 13.1 Generic agriculture value chain

Women are found across value chains but predominantly in the pre-production, production, and post-harvesting stages, including social mobilization. Agricultural credit, from micro- to macro-levels, has seen a huge increase in participation of women through SHGs (self-help groups). According to the India Labour Yearbook (GoI, MoLE, 2015), 4.205 million SHGs have been formed with approximately 60% being women SHGs. These SHGs have emerged as informal yet highly effective sources of rural credit, a large share of which is used for agriculture and allied activities. SHG is a concept unique to India and a few South-East Asian countries. Of the 7.69 million SHGs that are linked with the NABARD (National Bank for Agriculture and Rural Development), 6.65 million are exclusively women's SHGs. Many NGDOs, such as SEWA (Self-Employed Women's Association), PRADAN (Professional Assistance for Development Action), SRIJAN (Self Reliant Initiatives Through Joint Action), and the like, are involved in social mobilization by organizing SHGs. Of these, SEWA caters exclusively to women. Members of these SHGs are happy to use their SHG collections (savings and loans) not only for buying agricultural inputs, such as seeds and fertilizers, but also in some cases for saving agricultural land from the clutches of money-lenders—small-time business people who meet urgent credit requirements of the rural population but who charge exorbitant interest, often taking agricultural land as collateral.

At a higher level, women have been playing an increasing role in the banking sector, thus, significantly influencing agri-credit policies of the banks. According to Bezbaruah (2015), 19.1% of total employees, 17.3% of managers, and 20.6% of clerical and subordinate staff in all banks within the country were women in the year 2013, which is a substantial increase from 13.6%, 6.3%, and 16.4%, respectively in 1996. In addition, prominent banks in India today are led by women leaders like Arundhati Bhattacharya (State Bank of India), Chanda Kochhar (ICICI Bank), and Shikha Sharma (Axis Bank).

Women are found in the production and basic post-production processing in large numbers in India. However, the society does not seem to recognize it. Sainath (2013), in his opinion piece, "When Leelabai runs the farm," captured the situation aptly. Leelabai, the wife of Ashanna, has become a symbol of success in agriculture in the Vidarbha region of Maharashtra. She said, "I am the farmer. He did no farming … men hang

around the village, women are in the fields" (p. 1). She also candidly expressed who the real heroes (heroines?) of Indian agriculture are: "when it came to who really did the farming, '*Bai* (women),'" she said. "And they do it better" (Sainath, 2013, p. 1). The findings of the National Sample Survey Organization seem to suggest that sowing, transplanting, and weeding were the operations in which over a third of those involved were women, and more than 50% of those engaged in animal husbandry were women (Srivastava & Srivastava, 2010).

Baliyan (2014), in a study in western Uttar Pradesh, found that the pre-production task of weeding is carried out exclusively by women (weeding is the most tiresome of the agricultural operations), whereas activities related to land preparation, irrigation, and spraying fertilizer and pesticide are generally done by men. Some of the farming operations are performed jointly, like seed collection, spraying organic pesticide made with cow dung and other ingredients, sowing, transplanting, harvesting, threshing, and carrying the grains home. However, all market-related tasks are done by men, including decisions on purchase of agricultural inputs, labor requirements, and selling of the output. Simple processing is women's responsibility, such as cleaning and storage of grains. Thus, clearly, women perform more backbreaking tasks in agricultural operations, whereas those requiring the use of machines and those pertaining to financial decision-making are predominantly carried out by men.

According to an analysis (Mishra, 2016) of women's involvement in agriculture, only 12.69% of rural women have operational ownership. Thus, men are mostly the legal owners of family property, including agricultural land. Most women in agriculture do not have ownership of productive agriculture resources. The cases studied for this chapter corroborate this. The concept of the head of the household and the patrilineal society often result in women being deprived of ownership of productive assets; they often end up as workers on family farms. Only 2 of the 30 women leaders studied had land registered in their name. Incidentally, both are widowed and from the southern states of Tamil Nadu and Karnataka. Even the government recognizes this, and MKSP (*Mahila Kisan Sashaktikaran Pariyojana*—a scheme of GoI for empowering women farmers), with substantial focus on skills and capabilities enhancement, is an effort in this direction to recognize the wife of a farmer who works on the farm as a farmer.

Women's Leadership in Indian Agriculture

Leadership in agriculture at the grassroots is somewhat different as compared to corporate organizational contexts. In organizations, top leadership is mostly highly educated with a high net worth, known by a large number of people outside the organization, and having a wider circle of influence. In the case of agriculture, we do have such leaders as Dr. M. S. Swaminathan (a geneticist known as the father of the green revolution in India), Dr. Verghese Kurien (the man behind the world's largest agricultural dairy development program), Dr. (Ms.) Amrita Patel (who led the largest dairy development program under the aegis of the National Dairy Development Board—NDDB, after Dr. Kurien), Ms. Mallika Srinivasan (Chair and Chief Executive Officer (CEO) of Tractor and Farm Equipment—TAFE, also known as the Tractor Queen of India), agriculture activists like Sir Chhotu Ram, N. G. Ranga, Mahendra Singh Tikait, Sharad Joshi, Ms. Vandana Shiva (environmental activist with an extensive focus on advances in agriculture and food), and Ms. Suman Sahai (academician and activist working on policy issues related to genetically modified organisms). Clearly, men dominate; the number of women is very few. The agriculture leadership awards in 2016 further reiterates this. Of the eight awards in the individual category, seven were conferred upon men. The sole woman recipient was in the category of women's leadership award (9th Agriculture Leadership Summit, 2016). While the agriculture sector needs leaders and women leaders at every point in the value chain and in policymaking, research, and education, the focus in this chapter is on the everyday leaders at the grassroots level affecting everyday agriculture practices and production.

In order to explore women's leadership in agriculture at the grassroots level, 14 primary[1] case studies were conducted and 15 secondary ones were analyzed. The findings presented below are based on this exploratory analysis. It is encouraging to note that about a third of the case studies are from Rajasthan—culturally rich but ill-reputed from a gender perspective owing to its sex ratio unfavorable to women, prevalent practice of child marriage, and atrocities against women. The women leaders whose accounts are analyzed and reported here are from Andhra Pradesh, Gujarat,

Jharkhand, Karnataka, Madhya Pradesh, Odisha, Rajasthan, Tamil Nadu and West Bengal, ensuring regional representation except for the northern region where women's participation in agriculture is very low.

A typical woman leader described here is in the age group of 30–40 years, having primary schooling, belonging to a small or marginal farmer family, actively associated with a village-based group (SHG/Thrift Group), married, and with children who are studying and doing well. Most of the cases studied are of women who hold leadership positions in an SHG, an SHG cluster or federation, a dairy cooperative society (DCS), and so on. The age of the women is younger than women in many developing countries as, owing to the feminization of agriculture, more and more younger women are forced to enter agriculture as men in families migrate to urban areas in search of better livelihood options.

Leadership Characteristics and Style

The most common characteristic found across all cases was role modeling or leading by good example. A meta-analysis of the literature on leadership by Winston and Patterson (2006) lists "is an example" as a leadership dimension and cites several terms/phrases, such as "is a model for followers," "be an example," "a model," "show/model the way," "provide role model," and so on (p. 51). All leaders studied also practiced what they attempted to change in other farmers. Asha Devi, the *Krishi Sakhi*, replaced the broadcasting method of sowing with line sowing, before she could convince other women farmers in her farming school to do so. What was started by one woman in 2012 has led to over half the village adopting it within three cropping seasons. Some women leaders did not even initiate a change with an intention to lead; instead, success of their action inspired others. Santhi, from rural Tamil Nadu, took charge of the ancestral land after her husband's death. Having a keen interest in sustainable agriculture, she practiced it diligently by not removing shrubs from sugarcane crops (good for weed control and retaining crop moisture) and by applying fertilizer through drip irrigation. These practices have not only made her farming operations efficient, but have also made her the farmers' leader in her area. Both men and women have adopted these practices and seek her guidance.

Experimentation indicates the ability to try out new ways of dealing with problems. It also has an element of risk involved. The meta-analysis by Winston and Patterson (2006) identified risk-taking as a dimension of leadership and included phrases such as "ability to take risks," "risk taker," and "experiments and takes risks" (p. 45). The cases also indicate the presence of risk-taking in these leaders across the states studied. Kajori Devi (SRIJAN, 2015) from Rajasthan invested all her SHG savings in purchasing a buffalo, whereas Kamala Sakia (PRADAN, 2011) from Odisha using integrated natural resource management switched to horticulture from traditional cereal cultivation. Sagunthala from Tamil Nadu is another example. The 11 acres of semi-arid family farm had become almost fallow, covered by thorny bushes. With relentless hard work, she restored the land and took to organic farming. With this experience and success in her armory, she has become a great source of inspiration to the farmers in her village. Panchi Devi (Centre for microFinance [CMF]—Rajasthan, 2013), an uneducated woman from Rajasthan who grazed cattle for her family as a young girl, has today become a savior of the village livestock by becoming the *Pashu Sakhi* [Livestock Service Provider]. She has given new lives to about 5000 livestock by providing them good and timely treatment. She has also organized four SHGs that help the members in managing their savings and three cattle rearers' groups that help the members deal with their cattle-related issues.

All of these leaders studied came across as authentic individuals. Practice before you preach and leading by example are evidence of their authenticity. "An authentic person is genuine and does not feign qualities … he/she does not possess" (Zhu, May, & Avolio, 2004, p. 21). Winston and Patterson (2006) listed authentic as one of the over 90 leadership dimensions they found in their meta-analysis. Many of these women have also had a troubled past. Chintabai from Dewas in Madhya Pradesh is today known as the founder director of Ram Rahim Pragati Producers' Company Ltd. (RRPPCL). She was born to a bonded farm worker and married to an alcoholic, a debt-bonded farm laborer. Lakshminarasamma, today on the Board of Directors of Dharani Fam Cooperative Ltd., in Andhra Pradesh, was forced to take over the leadership of the thrift group led by her mother upon her sudden demise. Savitaben (NDDB, 2016), the chair of a DCS in Gujarat today, belongs to a tribal family of five that

lived in abject poverty, with a small unproductive piece of land, was forced to migrate seasonally to make ends meet. These life stories of misery and pain that these women have lived can be seen as crucibles of leadership (Bennis & Thomas, 2002) and possibly the reason for their commitment to the agricultural sector.

Knowledge had been identified as an important leadership dimension (Winston & Patterson, 2006). They cited several aspects related to learning, such as, "learns fast," "learns from failures," "learns unceasingly," and "seeks opportunities to learn." Lifelong learning, a strong desire to learn and continue learning, occurs commonly across the women under study. Anita Kumari (NDDB, 2016) from Jharkhand (an Indian state that, though rich in mineral resources, suffers widespread poverty) is an AI (artificial insemination) technician. She went to Andhra Pradesh where she completed 90 days of classroom training and 30 days of practical training on AI when many other participants discontinued the training. She also associated with veterinary doctors and, due to her keen interest, explored the problems of infertility in milch animals (a domestic animal yielding milk). She developed a level of expertise to such an extent that, even today, farmers trust her advice, even though she underwent AI training back in 1988. She also acquired skills in poultry farming and started her own small poultry farm in 1990. She went on to become the secretary of a DCS in her village.

All of the women attributed learning as a first step that took them to leadership positions. Most have only undergone primary school education; some never even went to school, few of them had secondary or higher education, or some who were relatively highly educated in their village, like Meera from Rajasthan (the only literate woman in her village when they were forming an SHG). It was their assumption that they would not be heard as they were not men and were not educated. In some cases, they were opposed by men members in the family like Suvarnamma from Andhra Pradesh recounted the criticism she faced from her husband on participating in any discussion: "You don't know how the world operates, so it's better you don't involve (yourself)." This realization about the need to learn and the humiliating life experiences inspired them to acquire in-depth knowledge and then apply that knowledge to influence agricultural practices of others, including their immediate family. All of

these women learned about their work, acquired knowledge through formal training, and associated themselves with learned people, and they are now leading various entities. For instance, Meera is a member of the governing board of an SHG Federation in Rajasthan and an effective *Pashu Sakhi*. Anjanamma is a member of the Board of Directors of Dharani FaM Cooperative Ltd. and has been successfully promoting organic farming. Manju Jakhar, an elected director on the board of Paayas Milk Producers' Company Ltd., and a recipient of the Dairy Woman of the Year 2016 award, is another example of how these women continue to learn. A company official recounted:

> Manju ma'am did not speak much during the first three meetings of the board, but, after attending a directors' workshop, she started coming to the company office early on the days of board meetings … would read the agenda papers … would clarify things by consulting with me … understand the process of decision making.

Today, Suvarnamma's husband consults her before taking any decision and Manju is competent to lead the board meetings of the company.

All of these women have been early adopters of improved agricultural and allied practices be it line sowing, organic farming, regular savings through SHGs, or using AI for their cows. Karuna Patra (NDDB, n.d.) in West Bengal was the first and only member to pour milk (regularly selling small amounts of milk to the procurement center) the day the DCS opened in her village on February 12, 2014. She not only continued to pour milk but also played a key role in organizing the dairy farmers in her village. Chintabai of RRPPCL was the first woman to sign up for the SHG being set up by an NGDO.

Courageous is also an adjective that describes these women, given the social context of strong patriarchy and the prevalent practice of confining women to the four walls of their home. Radha (CMF—Rajasthan, 2013) from Rajasthan showed courage in becoming a member of an SHG in her village against the wishes of her parents-in-law and eventually went on to become the *Pashu Sakhi* for the village. However, the villagers did not accept her initially as a *Pashu Sakhi*. Only after she applied her knowledge for treating her livestock and succeeding did the villagers began accepting her in the new role and started following her advice.

Traveling to a nearby town or the district headquarters may seem like an everyday act for many city-dwelling women, but it takes a lot of courage for the village women just about anywhere in India. When cattle breeding was assumed to be a highly technical job and not deemed suitable for women (Ghokhale & Karmarkar, 2016), women AI technicians operating in the villages of Rajasthan and Jharkhand successfully executed their roles, which is a testimony to their courage and competence.

Another important feature that the cases reveal is that money matters. Most of these women have been SHG or Thrift Group members and began their leadership journey, albeit unknowingly, by saving small sums of money regularly. There are plenty of examples of how these small sums saved regularly by women have come to the rescue of families while buying agricultural inputs/cattle or support children's education. Manbhar Devi (CMF—Rajasthan, 2013), a member of an SHG in Rajasthan, used her savings to dig a bore-well for irrigating her otherwise rain-fed family farm.

Perseverance and resilience are two other highly related qualities to be found in abundance in these women. Asha Devi vividly described her first day as *Krishi Sakhi* when she was at her agri-school explaining the benefits of line sowing and the need to replace broadcasting with line sowing. The response was dampening. She was told, "You keep your ways to yourself." She patiently explained it again to the women farmers attending farming school, but to no effect. She refused to give up. With repeated attempts, she managed to convince a few of the women farmers to try it on a portion of their family farm. With positive results, lesser investments, and higher returns achieved, the number of farmers willing to try it multiplied. Nirma Devi, another *Krishi Sakhi* from Rajasthan, has been a member and president of an SHG since 2013. For her, the challenges arose on the home front. Her husband did not agree with her going out to hold farming school and expected her to be in *Ghoonghat* [loose end of a *sari* pulled over the head and face to work as a veil]. Furthermore, the challenge of convincing the women farmers was the same as that faced by Asha Devi. Villagers raised questions about women traveling to other places. With perseverance and support from other women members of the SHGs, they overcame these challenges emanating from the home front, from other farmers, and from the villagers.

Unlike men, these women do not exhibit their power by attempting to dominate. Instead, they use a people-oriented leadership style as expressed by Lakshminarasamma of Andhra Pradesh. Listening to people and understanding their concerns is her people-oriented style. This style helps them deal with farmers with patience, while influencing their agricultural practices. As most have been part of a collective (SHG or thrift group), they hold a participatory leadership style that they perceive to be the most crucial for their success. SHGs are small units owned and managed by the community with a high degree of decentralization (Sarma & Mehta, 2014), necessitating a high degree of member participation.

As Suvarnamma put it, "striking a balance between farmers' interests (greater returns for their produce) and that of the consumers (greater value for money)" becomes quite a challenge.

Even with this high people orientation, as it is not the country club kind of leadership style that they exhibit, the task at hand is equally crucial. Thus, the cases studied indicate that the leadership style of these women can be characterized by feminine values of leadership (Vasavada, 2012), as briefly described below:

> An ethic of care and nurturance—characterized by behaviours such as supporting and soothing others … sensitive, emotional….
>
> Informal interpersonal communication—including open door policy, interpersonal approach … team centred approach, prefer frequent contact and information sharing.
>
> A participative leadership style—described as interpersonally oriented, more democratic tendencies … ability to listen, empowerment oriented. (p. 473)

Impact of Women's Leadership in Indian Agriculture

These women are impacting the rural society and economy. One very obvious and tangible impact for the leaders and farmers who followed them is increased production and efficient use of inputs. Saved livestock, better progeny, and improved quality of produce are other benefits.

In a social context where going out of the confines of home was unimaginable, when women go to a bank, interact with the officials, and

operate a bank account, it is a fundamental change in the lives of village women. Rajamoni (NDDB, n.d.) from Karnataka could not study due to poverty and had to graze cattle instead. She became a member of an SHG in which she saved and was able to purchase cattle. With earnings from the cattle milk, she multiplied her cattle such that she could sponsor her daughter's education by selling two of her cows. All the women leaders studied have narrated how their being active in agriculture has been financially empowering and how they used the savings to finance their children's education. My interaction with some women dairy farmers in Rajasthan also corroborated this. Thus, financial empowerment of the women resulted in increased purchasing power that has led to better education of the next generation and improved agricultural productivity and production.

These women have catalyzed social change. In a society where gendered division of labor is the norm, husbands have begun sharing household chores, inspiring change at the village level, and accepting not only women's critical role in agriculture, but also their superiority in many sub-sectors. Many women farmers studied have narrated how their spouses inquire about training at the farming school and have left the tasks of purchasing inputs to the women. Women like Manju (Rajasthan) and Rajamoni (Karnataka) have inspired their husbands to take up dairying and give up their petty jobs. These women are an inspiration not just for other women, but also for men and the next generation. When Asha Devi's school-going daughter attends the SHG meeting with her and helps her with the minutes of the meeting and books of accounts, it is definitely inspiring her. This is heralding a slow but steady social change that is around the corner.

Having been members of SHGs and other collectives has also given women the courage to identify village-level concerns and raise their voice about them. Meera Devi and her group, in one meeting, discussed the issue of new railway tracks being laid in their village and associated problems. They also arrived at an alternative and have begun a signature campaign to escalate the issue. This shows the strength of the collective that many of these women's SHGs are leveraging for a variety of social issues, be it alcoholism, quality of public services, or atrocities against women.

Challenges Faced by Indian Women in Agricultural Leadership

Gender-specific challenges faced by these women are typical, including those related to personal inadequacy, conflicts emanating from inter-role distance (role conflicts experienced by these women leaders owing to the multiplicity of roles they perform that are often at conflict with each other, e.g., the demands of reproductive roles downplaying their productive roles), and gender stereotypes. Being illiterate or inadequately educated is a personal inadequacy that many of the leaders studied admitted. While many have been able to acquire agricultural knowledge, further education and financial literacy in some cases are still challenges to be addressed. Striking a balance between their twin roles of homemakers and agriculture leaders is a challenge that many of the women studied have been able to overcome successfully and now have their husbands by their side sharing the homemaker role. Paravativalli of Karnataka shared the challenge of being the only woman farmer from her community, whereas many women farmers from Rajasthan recollected the lewd comments they faced when they began their journey of leadership. While most of the women have managed to deal with these challenges, the current challenges they face are largely related to the business of agriculture: ensuring participation of all farmer members in decision-making, dealing with fluctuating prices of agriculture produce, dealing with political pressures as political groups view them as a threat or wanting to leverage their popularity for their political gains, and internal power politics within the collectives they lead. The younger generation's apathy toward farming is a challenge that India as a country stares at, and the elderly women leaders are able to sense. The changing nature of challenges these women face is evidence of their growth as leaders who are not merely figureheads but who mean business.

What emerges as a facilitating factor in the majority of the case studies is the support provided by promoting NGDOs. This has come in the form of inculcating savings habits, identification of women with leadership potential, technical and leadership training, and opportunities to exercise leadership.

Recommendations

As the available literature indicates, feminization of Indian agriculture is here to stay. The deepening agrarian crisis is due to the plummeting agricultural growth rate, leading to farmer suicide, coupled with poor non-farm livelihood opportunities, forcing out-migration of men to urban areas. The need for India is to design policies and encourage practices that rest on this reality of Indian agriculture. This section offers recommendations for practice, for policymakers, and for researchers.

Recommendations for Practice

The leadership enablers described above need to be taken up by practitioners to improve women's leadership. The current crisis of pulses (a basic food in India) is due to reduction by about 50% in the net availability in the last 60 years from 1951 to 2011 (Reddy & Reddy, 2010), while at the same time there has been an increase in demand owing to a population increase of over 335% (Office of the Registrar General & Census Commissioner, India, 2011) during the same period. This is another challenge that Indian agriculture is facing. This crisis can plausibly be overcome if women who have begun to play vital roles in sustainable agriculture are trained in conserving and replicating local varieties of pulses.

Beyond this issue, agriculture in India is facing a crisis in the decline of the number of people focused on production of agricultural goods. As agriculture has been feminized in India, the focus of agricultural education must be more broadly focused on women. Given the low level of education of women in agriculture, school curricula should focus more on agriculture, including both primary and secondary education. More training workshops are needed across India to meet the needs of women in agriculture. Because of the significant role of SHGs in developing women leaders in agriculture, more effort is needed to build and expand SHGs, including the preparation of women for leadership of SHGs.

Future Research

This exploratory analysis was motivated by the fact that Indian agriculture is essentially agriculture by the masses. If farmers' interests are prioritized, any such study or efforts of strengthening agriculture need to focus at the grassroots levels and the production side of agriculture. As this chapter is an exploratory study, further systematic research needs to be conducted to understand women's leadership in agriculture at different levels to ascertain if there is a distinct feminine leadership style in the agriculture sector and to assess if a stereotypic masculine, feminine, or androgynous leadership style is more effective in agriculture. Studies with specific focus on women in agriculture value chains that can identify factors to strengthen the women farmers, as well as the value chains, are urgently required owing to the larger agrarian crisis and feminization of agriculture in India.

Because this chapter focused only on the production side of agriculture, there is a need for a similar study of women who are employed in agri-business, including food processing, distribution, and marketing of agri-produce. While women do not yet have the impact in these processes, compared with the production processes, there is greater financial potential in the agri-business arena.

Researchers in human resource development (HRD) need to focus not only on developing tools for systematically assessing leadership potential among women in agriculture at different levels, but also on identifying/developing tools, techniques, and processes that are appropriate for developing leadership in women.

Recommendations to Policymakers

While there have been numerous government policies both for strengthening Indian agriculture and enhancing leadership in women, the current requirement is that policymakers come up with implementation mechanisms for ensuring that land rights for women materialize into reality and that other policies already in place are enforced.

Conclusion

These women leaders have exhibited characteristics and styles that are plausibly unique to women. Though they started with gender stereotypical challenges, the current challenges for the existing leaders relate to the business of agriculture. Active support from NGDOs for their identification, training, encouragement, and membership in collectives and support from fellow members have been major facilitating factors besides their own courage and self-confidence. The women leaders that the chapter discusses are few and far between. The need is continuously to keep creating such leaders in large numbers.

Note

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