Good Case of Empowering Women in Agricultural Mechanization in Nepal

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Established-2015 Total Members-440

Nepal Agriculture Machinery Entrepreneurs' Association (NAMEA)

NAMEA is Social Non-profit Organization consisting of Entrepreneurs of Agriculture Machinery, Tools, Equipment & Technology.

NAMEA an active member of ReCAMA

Mission

To promote agriculture mechanization in Nepal through sustainable approach.

Members

Manufactures, Importers, Distributors & Retailors of agriculture machinery & farm mechanization technologies.

NAMEA works for capacity building of its members and their customers through training, knowledge and experience sharing via meetings and organizing exhibitions nationally and participation in international exhibitions and seminars/conferences.





Land Preparation/Tillage Status of Mechanization

- Terai-Over 95% of farms used tractors/power tillers, Tractor: >80%, Power tiller: <15%
- Attachment: rotavator, cultivators, tillers. Equipment: Own, rented, custom hiring
- Hills- Animal drawn indigenous plough/improved iron plough or spade are major human and animal power. Approximately 100,000 mini tiller (Nepal). 90% (90000) mini tiller adopted in Hills and mountain.

Planting/Seeding

- Rice is manually transplanted, mostly planting/seeding performed by women.
- Rice transplanter are introduced in Terai, but adoption rate is still low.
- Seed Drills for wheat and maize is getting popular

Inter-culture

• Power weeder, manual weeder,

Plant Protection- Sprayers are normally using, Mulching plastic are using various cash crops. Mulching film produce in Nepal(Exp. KhojRaj Katuwal have own factory, and many more.

Irrigations- Drip irrigation & Sprickler

Harvesting Technology

• Reapers, brush cutter, combine harvester are getting popular, 701 combine harvesters, No. of Reapers - 2800

Threshing- 90 % mechanize on threshing in Tarai

Straw Management- straw beller, straw reaper are using few numbers ,

Post Harvest- Milling Machine, seed graders, cleaners, oil expeller, etc

Green house technology- Plastic tunnel green house are using, many kind of vegetables production like, tomato, cabbage, mushrooms, capsicum etc

Source: Different



Status of Mechanization (2021/22) Haldinge

		Holdings							
O NOT			Number	Area (ha)	Wet (ha)	Dry (ha)			
Holdings without land			131,504	8,412.80	5,361.20	3,051.60			
Holdings with land			3,999,285	2,209,997.10		785,377.70	\setminus		
Total			4,130,789	2,218,409.90	1,429,980.60	788,429.30			
	1991/92		2001/02		2011/12		2021/22		
Types of Equipments	Holdings using equipments ('000)		Holdings using equipments ('000)		Holdings usin equipments ('000)	ng _{No of}		Holdings using equipments ('000)	
Iron ploughs	315.1	354.5	870.3	890.2	. 1073.	.4	856.3	3 702.8	509.9
Power tillers	5.6	1.6	15.6	11.8	3 75.	.7	10.4	471.3	118.0
Shallow tube wells	50.9	48.2	119.7	109.5	5 367.	.7	262	490.0	418.8
Deep tube wells	20.1	15.7	58.6	51.5	5 159.	.7	82	2 331.4	228.1
Rower pumps	3.5	3.8	3 22.7	21.8	3 79.	.1	36.2	2 51.1	22.3
Tractors	35.2	5.5	272.9	150.6	844.	.7	37.4	1,638.8	58.5
Threshers	85.6	19.9	249.5	129.1	803.	.1	51.9	9 1,175.1	114.9
Pumping sets	81.1	41.3	210.4	146.1	548	.2	150.3	690.6	399.8
Animal drawn cart	204.6	198.1	226.4	199.1	33	5	159.9	152.4	73.8
Sprayers	50.2	23.4	203	145.9	57	′ 4	282.3	1,150.9	770.2

Source: National Sample Census of Agriculture, CBS



Gender gaps

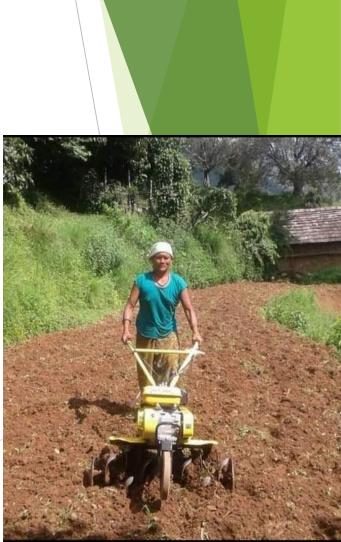
- Total population 29,164,578 (as of the census day -25 November 2021)
 - Male 14,253,551 (48.87 %)
 - Females 14,911,027 (51.13 %)

(Source: National Population and Housing Census 2021)

- Total population estimate to be engage in farming: 54.1% i.e. 15,778,036 (MOF)
- Female farmer is estimated to be: 28.1 % (calculated) i.e. 4,433,628
- No exact data in how many women farmer avail of mechanization solutions

Key points to consider women farmers and mechanization:

- 1. Increasing Participation
- 2. Access to Land
- 3. Training and Capacity Building
- 4. Mechanization services
- 5. Financial Support
- 6. Collective Farming
- 7. Challenges
- 8. Government Initiatives
- 9. Success Stories





Gender gaps

Gender Gaps in Nepalese Agriculture:

- 1. Limited Land Ownership
- 2. Unequal Access to Resources
- 3. Labor-Intensive Tasks
- 4. Education and Training

Addressing the Needs of Women in Applying Mechanization:

- 1. Promote Land Rights
- 2. Financial Inclusion
- 3. Prioritize in government subsidy program
- 4. Training and Capacity Building
- 5. Access to Mechanization Services
- 6. Gender-Sensitive Extension Services
- 7. Awareness Campaigns
- 8. Support Women's Cooperatives
- 9. Research and Development
- 10. Policy Support



Good case of empowering women **Custom Hiring Center (CHC)**

Total 581 number (PMAMP-575, DoEngg-4, FAO/TCP-2)

No exact data in how many managed by women farmer

One Good Example- "Women Leading Mechanization Hire Services"

An inspiring story from Chiti village, Nepal

Chairperson: Ms Radhika Tiwari

Location: Chiti village lies in Besisahar Municipality, Lamjung District,

Gandaki Province of northern-central mid-hills at about 180 km from Katmandu.

- Farming households: 60 of different ethnicities as Brahmin, Chhetri and Dalit.
- Livelihood: Agriculture and wage labour
- Staple crops: Rice, maize and wheat

Source - *Authors: Mayling Flores Rojas, Grace Tiwari, Pramitha Elizabeth Pothan @ FAO



Food and Agriculture

WOMEN LEADING

Organization of the

eks including Mount Everyst - the world's talks ik, is home to Chiti village. Chiti village lies in the untry's mid-bills, at about 180 km from Nanal' apital dity Ketmandu, it is home to 60 househo of different ethnicities such as Brahmin, Chi

t households of Child village rely on sorical wage labour for their Ivelhoods. Rice, mi ass their online at the nearest mill centre. T ed mother's once in 2015, with a simple we

ided the group with a collateral-free loan D 3400 with an annual interest rate of 16 perce is was enough to cover the initial investment for threaher, a sheller and a huller, their installatio nd the materials for constructing a shelter to sep the mechines in. All the group member clusteered their time and labour to construct th helter on a leased property

Good case of empowering women

One Good Example- "Women Leading Mechanization Hire Services"*

An inspiring story from Chiti village, Nepal

- Main Problem: Nearest mill centre is 2 hours walking distance to processing. To address this problem, 27 women formed the mother's group in 2015.
- Objective: To establish a mill and provide hire mechanization services to their community
- Main purpose: Establishing the mill was to provide services to the community rather than for business
- Finance: Collateral-free loan of USD 3400 with interest rate of
- 16 % from microfinance bank called Chhimeki Bikas Bank.
- Investment: a thresher, a sheller and a huller, their installation, a shelter

Source - *Authors: Mayling Flores Rojas, Grace Tiwari, Pramitha Elizabeth Pothan @ FAO

operator with incoveledge of how to operate the mill and the machines. Basides, the machines require regular maintenance and occusions impair. Fortunately, the mother's group has access to mechanics and spreparts in possibility.

Two group members are in charge of monitoring the machines' operation and lowesing weekly business accounts. We the beginning, out all women lowe how to perform these tasks. Groupship, the members areas for to monitor and user proceeds with the heigh of them members and the suith from Charmel Black Back' explained. We Subdivis Twent, the chalpmans and measure of the mother's group. "During the peskmeans to its insurance and the Dentaure, them its Dentation Back and the Charmel Black and the Subdivis the subdivision of the mother's group. "During the peskmeans to its resurp and Dentaure, them its Dentations every day. Otherwise, it generates three times a week on a first-come-first-overed basis' able added.

Seven years later, the null is still numbig and providing mechanization services to the community with an evening and annual port of about USD 1000. The group recovered the initial investment only three years their to creation. The purpose behind excluding the stop provide evolves to the community white then for bactreas purposed with excluding the purpose evolves to the provide the recovery the provide the stop of the community. As an example, the group downled a portion of the profit to the community's public whool.

Troughout the years, the warner from the mother's group have not only generated income and developed enterpresentual skills, but stee galand confidence and self-enteres not doubted a same of beinging in their class. This strary of a mother's group from Chit's usings is an assemption of collective action, willingness to movies and not being straid of towarding gender stream(percent) and princip.

> Include acomen in training on operation, maintenance, and repair of arm machinery and business solis.
> Brise exempted in training on social, economic and geoder lasses that the training errors to access mechanization.
> Frances exempted agrituation include hose mechanization for enclass for antical communities. Applications are reached applications for antical communities conten and exempted for exclusion counting along the value content and exempted for products.

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respond to women's needs for machenization and that support agributines opportunities in runs' communities. A Reduce women's work burden through Improved access

to technologies, including mechanization and sharing domestic and temly care responsibilities more equally between women and mer.

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Good case of empowering women One Good Example- "Women Leading Mechanization Hire Services"*

An inspiring story from Chiti village, Nepal

- Challenges : Few of them are
 - Set up their agribusiness
 - Lack of access to agricultural and machinery training
 - high work burden due to domestic and farming responsibilities
 - fear of failure
 - Judgement and criticism
- Management:
 - the group hired an operator with knowledge of how to operate the mill and the machines
 - has access to mechanics and spare parts in proximity
 - 2 group members are in charge of monitoring the machines' operation and keeping weekly business accounts
- Training: from Chhimeki Bikas Bank for monitoring and keep records
- Operation: Daily during peak season January and February, 3 times per week

in lean season on first-come-first-served basis.

Source - *Authors: Mayling Flores Rojas, Grace Tiwari, Pramitha Elizabeth Pothan @ FAO

Good case of empowering women

One Good Example- "Women Leading Mechanization Hire Services"*

An inspiring story from Chiti village, Nepal

Outcome:

- Still running smoothly after 7 years giving mechanization services to the community
- An average net annual profit of about USD 1000
- Break even point was 3 years
- Some portion of profit donated to the community's public school as for social development activities

Benefit and lesson learned:

- generated income and developed entrepreneurial skills
- gained confidence and self-esteem
- fostered a sense of belonging in their village
- an example of collective action
- willingness to innovate
- not being afraid of breaking gender stereotypes

Source - *Authors: Mayling Flores Rojas, Grace Tiwari, Pramitha Elizabeth Pothan @ FAO



Current Executive Committee of NAMEA from 8th AGM, Dated: 22 Sep, 2023



Thank you all for your attention



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