

# Good Case of Empowering Women in Agricultural Mechanization in Nepal

**Mr. Krishna Sharma**

President, Nepal Agricultural Machinery Entrepreneurs Association (NAMEA), Nepal  
Managing Director, SKT Nepal Pvt. Ltd.

Presentation at

The 9th Member Meeting of the Regional Council of Agricultural Machinery  
Associations in Asia and the Pacific (ReCAMA), 2-4 October 2023, İzmir, Türkiye



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.**





# Status of Mechanization

## Land Preparation/Tillage

- 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)

	Holdings			
	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	1,424,619.40	785,377.70
<b>Total</b>	<b>4,130,789</b>	<b>2,218,409.90</b>	<b>1,429,980.60</b>	<b>788,429.30</b>

Types of Equipments	1991/92		2001/02		2011/12		2021/22	
	Holdings using equipments ('000)	No. of items ('000)	Holdings using equipments ('000)	No. of items ('000)	Holdings using equipments ('000)	No. of items ('000)	Holdings using equipments ('000)	No. of items ('000)
<b>Iron ploughs</b>	<b>315.1</b>	<b>354.5</b>	<b>870.3</b>	<b>890.2</b>	<b>1073.4</b>	<b>856.3</b>	<b>702.8</b>	<b>509.9</b>
<b>Power tillers</b>	<b>5.6</b>	<b>1.6</b>	<b>15.6</b>	<b>11.8</b>	<b>75.7</b>	<b>10.4</b>	<b>471.3</b>	<b>118.0</b>
Shallow tube wells	50.9	48.2	119.7	109.5	367.7	262	490.0	418.8
Deep tube wells	20.1	15.7	58.6	51.5	159.7	82	331.4	228.1
Rower pumps	3.5	3.8	22.7	21.8	79.1	36.2	51.1	22.3
<b>Tractors</b>	<b>35.2</b>	<b>5.5</b>	<b>272.9</b>	<b>150.6</b>	<b>844.7</b>	<b>37.4</b>	<b>1,638.8</b>	<b>58.5</b>
<b>Threshers</b>	<b>85.6</b>	<b>19.9</b>	<b>249.5</b>	<b>129.1</b>	<b>803.1</b>	<b>51.9</b>	<b>1,175.1</b>	<b>114.9</b>
Pumping sets	81.1	41.3	210.4	146.1	548.2	150.3	690.6	399.8
<b>Animal drawn cart</b>	<b>204.6</b>	<b>198.1</b>	<b>226.4</b>	<b>199.1</b>	<b>335</b>	<b>159.9</b>	<b>152.4</b>	<b>73.8</b>
<b>Sprayers</b>	<b>50.2</b>	<b>23.4</b>	<b>203</b>	<b>145.9</b>	<b>574</b>	<b>282.3</b>	<b>1,150.9</b>	<b>770.2</b>

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

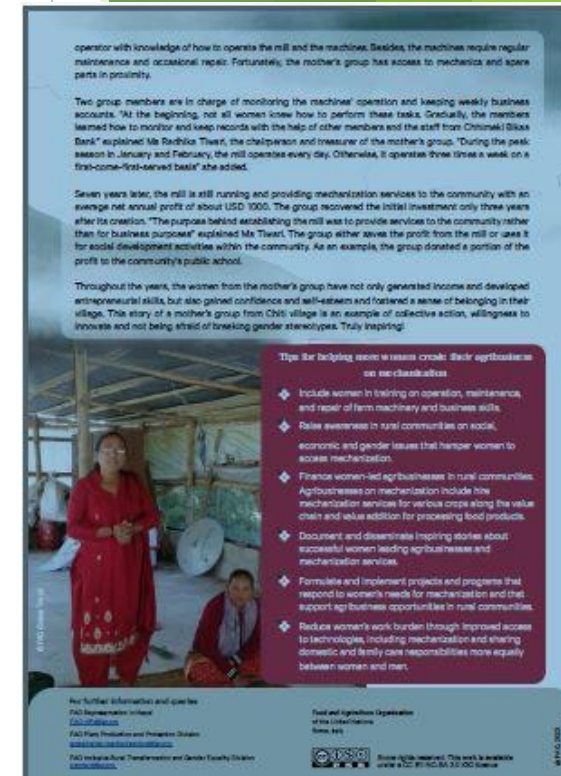


# Good case of empowering women

## 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







# 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.



# 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



# Current Executive Committee of NAMEA from 8<sup>th</sup> AGM, Dated: 22 Sep, 2023





Thank you all for your attention



Nepal Agricultural Machinery Entrepreneurs' Association ( NAMEEA)

Sitapaila, Kathmandu, Nepal

Tel: +977-01-4285403, Email: [namea2015@gmail.com](mailto:namea2015@gmail.com)

[www.nameanepal.org.np](http://www.nameanepal.org.np)