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# VIETNAM'S SOCIO-ECONOMIC DEVELOPMENT

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- Informal Economy in Hai Phong City: Performance and Policy Recommendations
- Livelihood Resources and the Factors Affecting Urban Poverty: The Case of Ha Noi
- The Impact of Macro Factors on Profitability of Food Manufacturing and Processing Enterprises Listed on Vietnam's Stock Markets
- Goat's Value Chain from Lao PDR to Vietnam

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Goat's Value Chain from Lao PDR to Vietnam

# Goat's Value Chain from Lao PDR to Vietnam

**Bui Thi NGA**

Vietnam National University of Agriculture

Email: [btnga@vnua.edu.vn](mailto:btnga@vnua.edu.vn)

**Nam HOANG**

University of New England, Australia

Email: [nam.hoang@une.edu.au](mailto:nam.hoang@une.edu.au)

**Ngo Thi Kim CUC**

National Institute of Animal Science

Email: [cucngokim@yahoo.com](mailto:cucngokim@yahoo.com)

**Nguyen Viet DON**

National Institute of Animal Science

Email: [nvietdon@gmail.com](mailto:nvietdon@gmail.com)

## Abstract

*Raising goats is an income-generating activity and helps improve nutrition for resource-poor households, especially those in remote, tribal and ecologically vulnerable areas. Goats thrive in Laos under extensive conditions with minimal state management and have a high potential for further development. This qualitative study tries to shed light on goat's value chain from Laos to Vietnam, focusing on its four major actors, namely, goat rearing farmers, internal and external traders, abattoir owners, and restaurateurs. Our study also scrutinize four main supporting stakeholders of the goat chain, include policy framework supporters, projects and NGOs, technical supporters and license supporters. The analysis of the gross margin suggests that commercialization of goat yields in Laos positively affects net income, however, the magnitude of the margins accrued to the producer is still not clear, maybe lower than other actors in the value chain.*

**Keywords:** Value Chain, Goats, Laos, Vietnam.

## Introduction

Goats were among the first farm animals to be domesticated, linked to humans for at least 10,000 years (ADB, 2014). Due to their great adaptability to difficult environmental conditions and different diets, they have always been considered very useful animals for their good productivity and ease of rearing and cost savings. Raising goats is an income-generating activity and improves nutrition for resource-poor households, especially in remote, tribal, and ecologically vulnerable areas. In rural areas of developing countries, the contribution of goats is highly valued and has an important role in feeding the populations, an item that is often not adequately recognized when comparing goats with sheep and cattle. Notably, in contrast to the goat farmers belonging to the poorest communities, goat meat consumption is largely by the richest segments of the population.

Goat meat is widely consumed in developing countries. Of the approximately 280 million total tons of meat consumed per year, goat meat accounts for only 2% of this total, about 4.9 million tons (Dube *et al.*, 2017). Developing countries produced approximately 97% of this amount, reflecting the great importance of goat meat to feed these populations.

In Lao People's Democratic Republic (PDR), goats have a good chance to develop with minimal management (APHCA, 2006; Stur and Gray, 2014). With a total of 18,761 thousand hectares of forest, accounting for 81.3% of 23,080 thousand hectares of land area (FAOSTAT, 2020a), Lao has good and favorable conditions for small ruminants, including goat rearing such as vast area of forest, fallow land in mountainous areas.

During 2000-2018, the number of goats in Laos increased steadily, with a growth rate of 506.4% (FAOSTAT, 2020b), driven primarily by increased demand from Vietnam due to both population growth and increase in GDP per capita over the same period (Gray *et al.*, 2019).

Goats thrive in Laos under extensive conditions with minimal management and have a high potential for further development. However, to date, there lack profound studies on goat consumption, goat market, especially its value chain in Laos. Pathoummalangsy (2014) provided initial analysis of market of native goats and value chain in central Laos. A study by NAFRI, NAFES and NUOL (2005) assessed the potential for goat production and marketing in Savannakhet province. As for Vietnam, Nguyen Van Thu and Do Thi Thanh Van (2018) analyzed recent development of dairy goat production in the country.

This qualitative study attempts to provide a more profound and comprehensive analysis of goat's value chain from Laos to Vietnam. Except of Introduction, this paper consists of four sections. Section 1 provides a brief overview of Lao's goat farming. The subsequent section clarifies

characteristics of goat's value chain in Laos with extension to Vietnam. Section 3 analyzes the goat's value-added distribution. The last section concludes the paper.

### 1. Brief overview of Lao's goat farming

Laos has favorable climate and geographical conditions for goat farming. With a total of 18,761 thousand hectares of forest, accounting for 81.3% of 23,080 thousand hectares of land area (FAOSTAT, 2020a), Lao has a good condition for small ruminants, including goat rearing. The free-range systems are applied, and goats are grazed freely all year in small groups in forest and fallow land in mountainous areas. The goat eats fodder trees, shrubs and bushes and grasses. Indigenous goats are small and raised for meat. Farmers tend to restrict the number of goats they raise to avoid excessive damage to crops, for which the owner is held responsible (FAOSTAT, 2020a).

The number of goats in Laos increased steadily between 2000 and 2018 from 121,700 to 616,325, an increase of 506.4% (FAOSTAT, 2020b). Gray *et al.*, (2019) explained that this growth is driven primarily by increased demand from Vietnam due to both population growth of 19% in 2000-2016 and more significantly a 228% increase in GDP per capita over the same period.

Goat's production is mostly based on small-scale farmers. In the Northern provinces, the number of goats per goat rearing household ranged from 2.2 to 3.4 (Gray, 2004). In the central province of Khammouane, the number of goats per household was 12 to 16 (Kounnavongsa *et al.* 2010). This number was 5.3 and 10.2, according to the report of MAF (2014) and Gray *et al.* (2019), respectively. In 2012/13, 99% of goats were raised in smallholder systems (Stur and Phengsavanh, 2014).

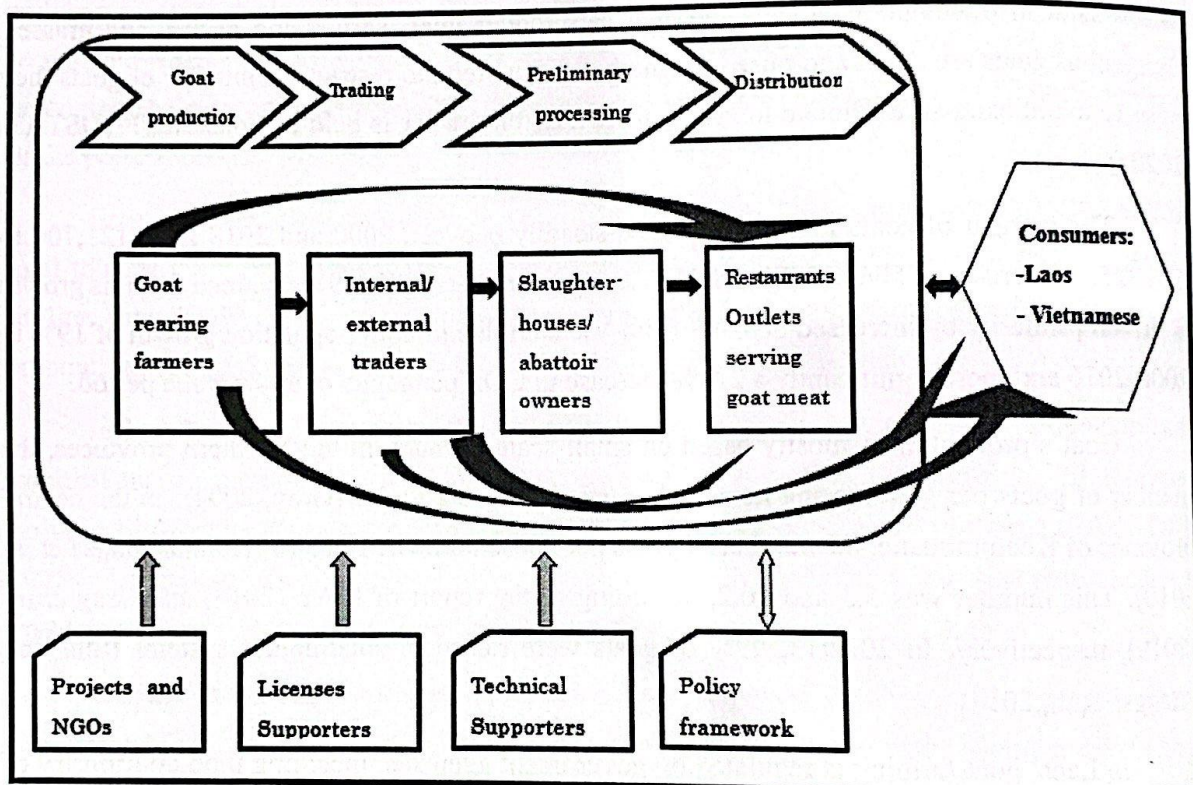
In Laos, goat farming is regulated by government agencies, including the Lao Ministry of Agriculture and Forestry, Department of Livestock and Fisheries (DLF) at the national level, and Provincial Agriculture and Fisheries Offices and District Agriculture Forestry and Extension Offices (MAF, 2014; Gray *et al.*, 2019). These agencies create a policy environment through resolutions, decisions, decrees, directives, etc., and establish the development plan to strengthen and promote livestock production in general and goat production in particular.

In recent years, although goat production in Vietnam has been developing very fast at around 30% annually with the total population of 2,684 thousand head in 2018 (GSO, 2019), it still imports goat meat (1059 tons in 2015 according to FAOSTAT, 2020c) mainly from Laos due to high demand (Nguyen Van Thu and Do Thi Thanh Van, 2018). Gray *et al.* (2019) found that up to 90% of goats produced in some surveyed regions of Laos exported to Vietnam and, on average, the price was 30% higher than Vietnamese crossbred goats.

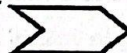



2. Goat value chain in Laos

Similar to many other developing countries, the indigenous goat industry in Laos is not organized in the form of provincial and national structures (NDA, 2018). The goat chain actors consist of goat rearing farmers, internal and external traders, abattoir owners and restaurateurs. This section presents the detailed Laos goat value chain along with typologies of the stakeholders involved in the value chain.

Figure 1: Laos goat chain



Note:

-  Function of the chain
-  Supporters of the chain
-  Actors of the chain
-  Flows of goods and information

Source: The authors' compilation.

• Characteristics of the chain

In Laos, there seems not be evidence of the formal national goat value chain. The informal chain consists of goat rearing farmers, traders, abattoir owners and restaurateurs (Gray *et al.*, 2019). There was not any declaration of the leader in creating cohesion and leading the actors along the chain, either. It is a type of export market demand-driven chain, originated from Vietnamese customers (Gray *et al.*, 2019). The relationship of actors along the chain seems quite

good but informal. It is important that there was no documentation for the contract farming among chain actors such as among goat rearing farmers and traders or abattoir owners, or restaurants. Comparative advantages of goat farming are still high as the demand for goat meat is high but affected by high transaction costs and underdevelopment of the traceability system.

- **Functions and roles of goat's chain actors**

The goat chain in Laos has four main functions, including production, trading, preliminary processing, and distribution. These functions are implemented by four major actors along the chain, starting from goat rearing farmers, traders – including internal and external traders, abattoir owners and restaurateurs. Quite different from other ruminant animal chains such as dairy cattle and buffalo, the input suppliers seem to play an unimportant role in goat chain (Bui Thi Nga, 2014).

- **Production**

As mentioned earlier, goat production is mostly based on small-scale farmers.

Farmers are considered the first and a starting actor of the goat chain as they create products for the chain. There was not much information about the role or power of farmers in price negotiation. Almost all of them are independent farmers raising goats without any support from traders and/or abattoir owners or restaurateurs. Therefore, they do not work under the control of the other actors along the chain.

- **Trading**

Laos traders (also known as middlemen) and Vietnamese traders work as goat collectors. Lao traders purchase goats from farmers and sell them to the restaurants and/or outlets serving goat meat and/or Vietnamese traders. Afterward, Vietnamese traders buy goats from Laos traders and sell them to Vietnamese restaurants or outlets. Most goat traders work independently and receive their income. In some cases, they depend on the slaughterhouses (Gray *et al.*, 2019).

- **Preliminary processing**

It seems that there was not any clear evidence or reports on the goat processing industry in Laos. There is the existence of goat preliminary processing through the slaughterhouses. It is believed that slaughterhouse owners have the most influence over goat price along the chain actors. They purchase goats from the traders then process and sell goat meat to restaurants and other retailers. The prices offered by them to the traders and hence down to the farmers will reflect the market equilibrium for any day. It is expected that approximately 90% of goat products pass through these slaughterhouses (Gray *et al.*, 2019).

### - Distribution

There is a quite narrow network of distributors in Laos but rather a wide network of distributors in Vietnam. In Laos, there are only some restaurants in each large town and 30 to 40 outlets serving goat meat in Vientiane, providing products to domestic consumers (Gray *et al.*, 2019). Meanwhile, in Vietnam, there are many restaurants, outlets serving goat meat or retailers. Vietnam is considered a large consumption market for Lao goat meats. The Laos goat, also referred to in Vietnam as a 'mountainous' goat, 'local' goat or 'grass' goat receives a significant premium in the Vietnamese restaurant trade (Gray *et al.*, 2019).

- **Relevant stakeholders of the chain**

There are four main groups of supporting stakeholders in the goat chain in Laos, they are policy framework supporters/state agencies, projects and NGOs, technical supporters, and license supporters.

The second group of stakeholders in the goat chain is the projects and NGOs including Asian Development Bank (ADB, 2014); Australian Centre for International Agricultural Research (ACIAR) (Gray, 2019); National Agriculture and Forestry Research Institute (NAFRI) (NAFRI, NAFES and NUOL, 2005); International Center for Tropical Agriculture (CIAT), the International Livestock Research Institute (ILRI), and other international, national agricultural research institutions from countries including Australia and Sweden (Gray *et al.*, 2019). All these stakeholders support research and deliver recommendations to promote and strengthen the livestock chain in general and goat chain in Laos in particular.

The technical stakeholders in the goat chain involve in the technique of goat management, breeding (with little documentation) from the veterinarian and universities such as the National University of Laos (NUOL) in Vientiane and Souphanouvong. They provide training courses/workshops for feed preparation or help farmers to deal with their specialized problems such as diseases control, protecting goats from harsh conditions and preventing them from natural disasters (Kongmanila, 2017; NUOL, 2019).

In the indirect channel of export, when a Laos trader sells a Vietnamese trader through the Lao Bao border (Southern market chain), he/she needs three kinds of certifications (Nam Hoang *et al.*, 2017), including: Health Certificate, obtained within the district of origin and checked by District Agriculture and Forestry and Extension Office officers (DAFO); Certificate of origin, purchased at the point of origin; and Export license, purchased from companies accredited by the government to issue them. Laos trading companies (*i.e.*, Ketsana) must pay for the government in order to be a licensor.



### Linkages in the chain

There was not much information and document about both vertical and horizontal linkages in the Laos goat chain. Along the chain, there is little evidence of linkages among actors such as between farmers, internal and external traders, restaurateurs and outlets (Gray *et al.*, 2019).

### 3. Value-added distribution

Analyzing the value chain of goat meat helps to identify different stakeholders, economic analysis of each stakeholder, channels that show the flow of goat meat and constraints faced by each stakeholder (Verma and Lok Prakash, 2019). It is very difficult for smallholder (goat farmers) to engage in either new or existing value chains in a manner that will benefit them. Even if demand is high, farmers need to have their capacity in production, business skills and entrepreneurship to develop their activities to an enterprise-level allowing them to engage in and benefit from goat value chain development. Goats already supply a continuous flow of income, which is often difficult to obtain through raising seasonal vegetables. When fully engaged in the value chain, the farmer's livelihood can be improved even further to the level of enterprise and sustainability.

Goat farmers could earn 250-300% higher incomes from goat rearing only by adopting scientific norms of goat management (BAIF, 2016) and potentially higher by improving the herd size and engaging in goat rearing as an enterprise. However, in Laos, little is known about the current value chain for livestock trade in general and goat trade in particular and the involvement of private traders (Gray *et al.*, 2019).

Goats are assets that are easy to sell for cash and as such, many of the sales are triggered by the need to support family expenses rather than as a business initiative. It was observed that many of the households that participate in the marketing of goats are those with a bigger flock. Building and maintaining the herd size is, therefore, of great importance to the smallholder farmers and affects their marketing decisions. The analysis of the gross margin suggests that the commercialization of goat yields in Laos positively affects net income (Gray *et al.*, 2019), however, the magnitude of the margins accrued to the producer is still not clear, maybe lower than other actors in the value chain.

Table 1: Value chain for a 20 kg goat in Savannakhet province, Laos

Actors		For 20 kg of goat			Cuts (USD/kg)
		Operating cost (USD)	Turnover (USD)	Added value (USD)	
Farmers		Culled does Buck Service Labour Concentrated Feed Veterinary Medicines Replacement Does Land rental Light and Water	106-127		
	<i>Laos traders</i>	115	127-133	12-18	
	<i>Vietnamese traders</i>	106-140	152	12-46	
Vietnamese slaughterhouses		152			
Laos restaurant		127-133	175-205	48-72	
Consumers	<i>Laos consumers</i>				9-10
	<i>Vietnamese consumers</i>				10-28

Source: Data from Gray *et al.* (2019).

There were some estimates or survey data on the costs incurred in moving goats across the border, nevertheless, more data needs to be collected particularly with regards to transport costs (Gray *et al.*, 2019). In addition, there was also very poor information to fully assess the value-added distribution along the goat chain in Laos, for example, the information about operating cost for farmers, time of rearing from the beginning to the sales of a goat, or turnover of slaughterhouses. Thus, it is necessary to research more profoundly for a better understanding of

the transaction costs incurred between the different stakeholders in this value chain and more effective policy making.

### 3. Conclusion

Goats are among the earliest animals domesticated by humans and rank third among ruminants in terms of numbers due to their wide adaptation and capability of being tamed by households with low levels of land resources. Raising goats is an important income-generating activity and improves nutrition for resource-poor households, especially in remote, tribal and ecologically vulnerable areas.

Goats thrive in Laos under extensive conditions with minimal management and have a high potential for further development. Similar to many other developing countries, the indigenous goat industry in Laos is not organized in the form of provincial and national structures.

In Laos, the goat chain actors consist of goat rearing farmers, internal and external traders, abattoir owners and restaurateurs. There was not any declaration of the leader in creating cohesion and leading other actors along the chain. It is a type of export market demand-driven chain, originated from Vietnamese customers. There was no documentation for the contract farming among chain actors.

The goat chain in Laos is implemented by four major actors, starting from goat rearing farmers, traders – including internal and external traders, abattoir owners and restaurateurs. Input suppliers seem to play an unimportant role in this chain. Production is mostly based on small-scale farmers of around 10 heads. Traders (include Laos and Vietnamese traders) work as goat collectors. There was not any clear evidence or report on the goat processing industry, but there is the existence of goat preliminary processing through the slaughterhouses who is believed to have the most influence over goat price along the chain. There is a quite narrow network of distributors in Laos but rather a wider network of distributors in Vietnam.

There are four main groups of supporting stakeholders for the goat chain in Laos, they are policy framework supporters, projects and NGOs, technical supporters and license supporters. However, the information about both vertical and horizontal linkages and distribution in the Lao goat chain is deficient. There needs to be a better understanding of the transaction costs incurred between the different stakeholders in this value chain. While there are some estimates available of the costs incurred in moving goats across the border, more data needs to be collected particularly with regards to transport costs. All these limitations and shortages should adequately be solved to help better policy making in order to develop the goat value chain in a more effective and sustainable manner.

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### References

1. ADB (2014), *Northern Smallholder Livestock Commercialization*, Project Number 47300-002, [Available at: <https://www.adb.org/projects/documents/northern-smallholder-livestock-commercialization-project-pam>].
2. APHCA (2006), *Goats-undervalued assets in Asia*, Proceedings of the APHCA-ILRI Regional Workshop on Goat Production Systems and Markets, Luang Prabang, Lao PDR, October 24 – 25, 2006.
3. Dube, S., Chakoma, I. and Bahta, S. (2017), *Analysis of the goat value chain in Beitbridge district of Zimbabwe*, ILRI project report, Nairobi, Kenya: International Livestock Research Institute (ILRI).
4. FAOSTAT (2020a), *Country profile of Lao PDR*, [Available at: <http://www.fao.org/countryprofiles/index/en/?iso3=LAO>].
5. FAOSTAT (2020b), *Production of Goat of Lao PDR*, [Available at: <http://www.fao.org/faostat/en/#data/QA>].
6. FAOSTAT (2020c), "Crops and livestock products of Goat and export quantity of Lao PDR", [Available at: <http://www.fao.org/faostat/en/#data/TA>].
7. Gray, G. D. (2004), *Constraint, Opportunities, and Interventions for Goat Production in Laos*, Participatory Livestock Development Project ADB PPTA 4287-LAO, Report of the Smallholder Development Specialist, International Livestock Research Institute (ILRI).
8. Gray, D., Walkden-Brown, S., Phengsavanh, P., Patrick, I., Hergenhan, R, Nam Hoang, Phengvilaysouk, A., Carnegie, M., Millar, J. and Nguyen Huu Van (2019), *Assessing goat production and marketing systems in Laos and market linkages into Vietnam*, ACIAR LPS/2016/027 final report, [Available at:

- [https://www.aciar.gov.au/sites/default/files/project-page-docs/final\\_report\\_lps-2016-027.pdf](https://www.aciar.gov.au/sites/default/files/project-page-docs/final_report_lps-2016-027.pdf)].
9. General Statistics Office of Vietnam (GSO) (2019), *Vietnam Animal husbandry statistics*, [Available at: <http://channuovietnam.com/gia-ca-thi-truong/tt-trong-nuoc/>].
  10. IFAD (International Fund for Agricultural Development) (2018), *Building a vibrant goat sector: Approach paper for vision 2030*, [Available at: <https://www.ifad.org/documents/38714174/40260862/Building+a+vibrant+goat+sector+a+pproach+paper+for+vision+2030.pdf/e9ff614b-7d81-4778-a755-c7a0ae1f121b>].
  11. IGA (2014), *Scaling-Up Successful Practices on Sustainable Pro-Poor Small Ruminant Development*, International Goat Association, Little Rock, Arkansas, USA.
  12. Kounnavongsa, B., Phengvichith, V. and Preston, T. R. (2010), *Existing goat production systems in Khammouane province Lao*.
  13. NAFRI, NAFES and NUOL (2005), *Improving Livelihoods in the Uplands of the Lao PDR: A Sourcebook*, National Agriculture and Forestry Research Institute, National Agriculture and Forestry Extension Service and National University of Lao PDR [Available at: <http://www.mekonginfo.org/assets/midocs/0001773-environment-improving-livelihoods-in-the-uplands-of-the-lao-pdr.pdf>].
  14. Nam Hoang, Phengsavanh, P., Patrick, I., Gray, D. and Walkden-Brown, S. (2017), Understanding Goat Market Chains between Southeast Laos and Central Vietnam, in North West Vietnam Research Symposium 'Mountains of Opportunity', Hanoi, Vietnam, 22-24 November 2017, pp. 87-90.
  15. NDA (2018), "Profiles of the South African goat market value chain", [Available at: <https://www.nda.agric.za/doiDev/sideMenu/Marketing/Annual%20Publications/Commodity%20Profiles/Goat%20Market%20Value%20Chain%20Profile%202018.pdf>].
  16. NUOL (2019), "NUOL's agriculture faculty gives boost to goat farmers", [Available at: <https://www.phakhaolao.la/en/news/nuols-agriculture-faculty-gives-boost-goat-farmers>].
  17. Nguyen Van Thu and Do Thi Thanh Van (2018), "Recent Status, Research and Development of Dairy Goat Production in Vietnam", The 4th International Asian-Australasian Dairy Goat Conference 17-19 October, 2018, Tra Vinh University, Vietnam.
  18. Pathoummalangsy, K. (2014), *Fattening is an option to improve smallholder goat production in Lao PDR*, Swedish University of Agricultural Sciences.

19. Stur, W. and Gray, G. D. (2014), Livestock in smallholder farming rice systems of Mainland South East Asia, in *Trajectories of rice-farming households in mainland South-East Asia* (Ed. R Cramb.), ACIAR Monograph No. 177, Australian Centre for International Agricultural Research: Canberra.
20. Verma and Lok Prakash (2019), Value chain analysis of goat meat in domestic market of Chhattisgarh, Master Thesis, Pant University of Agriculture and Technology, Pantnagar.

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