

INDONESIA AUSTRALIA RED MEAT & CATTLE PARTNERSHIP

Newsletter

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FEATURED IN THIS EDITION

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This publication is freely available from redmeatcattlepartnership.org

For further information contact the Advisory and Support Group (ASG) of the Partnership: info@iapasg.org

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Department of Agriculture, Water and the Environment
Postal address GPO Box 858 Canberra ACT 2601
Telephone 1800 900 090
Web agriculture.gov.au

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FOREWORD

2021 brings a new outlook for the Indonesia-Australia Partnership on Food Security in the Red Meat and Cattle Sector (the Partnership).

Welcome to our seventh newsletter covering the activities of the Partnership.

2020 posed enormous challenges to many people and industries around the world, and our sector was not immune. There is no denying that many operators across the red meat and cattle sector endured an *annus horribilis* in 2020. Aside from the economic, social, and personal impacts of the coronavirus pandemic, our farmers, processors, distributors, and other enterprises have had to contend with relatively high feeder cattle prices, higher feed and operating costs, unfavourable exchange rates, low fixed market prices for fresh beef, and an influx of imported Indian buffalo meat on Indonesian markets.

While our sector faced many difficulties in 2020, 2021 brings opportunities for recovery. The Partnership is working hard to find ways to improve productivity and profitability in the sector as we navigate through the pandemic.

For instance, the Partnership's work looking into digital options for red meat production and marketing will shed light on opportunities for our sector to improve efficiency and profitability through using technology. The continuing trend toward online shopping for food by Indonesia's 160 million smartphone users, which has only increased during the COVID-19 era, provides a pathway into the country's US\$14 billion e-commerce market.

Similarly, the Partnership's preparatory work to expand Indonesia's export markets will eventually help stabilise and stimulate the sector. Of course, such market development takes time, but strong sales potential has been identified in countries such as the People's Republic of China, Thailand,

Viet Nam, the Philippines, and Singapore.

This edition of our newsletter recognises the impact of the Indonesia-Australia Commercial Cattle Breeding Program (IACCB), which culminated in February 2021. We take this opportunity to thank all those who have been involved with the program over the past five years. IACCB has helped to reshape attitudes toward commercial cattle breeding in Indonesia and it is a great credit to the program team that partner enterprises are now scaling up to achieve a projected 2026 closing herd stock of more than 6,000 cattle.

It is encouraging to read about the enthusiasm of Partnership short course graduates such as lin Sainah, Sufyan Mashuri, Pandu Tokoh Amukti, and Syahrini Rauf as well as our latest training program alumnus, Esdinawan Carakantara 'Caraka' Satrija. The dedication of these alumni puts our sector in good stead for the future.

We hope you enjoy this edition of our newsletter.

Mr Chris Tinning
(Australian Partnership
Co-Chair)



Mr Riyatno
(Indonesian Partnership
Co-Chair)



PARTNERSHIP MAKES PROGRESS ON PATH OUT OF PANDEMIC

The Partnership's forward planning for the red meat and cattle sector, and its assessment of industry opportunities throughout 2020, are providing hope for a brighter 2021 and beyond.

As the agriculture sector continues to count the cost of the COVID-19 pandemic, the Partnership is laying the groundwork for expansion of Indonesian beef products into key Asian markets and is exploring the potential of the country's US\$14 billion e-commerce market.

The work was commissioned through the Partnership's industry reference groups, which identified two viable pathways—market expansion and digital efficiencies—to secure profitability gains for red meat and cattle enterprises in Australia and Indonesia.

"This is a great example of the benefits of the Partnership and the foresight it can provide," says Dr Ben Mullen, Strategic Advisor for the Partnership's Advisory Support Group.

"These projects to explore value-added beef products in export markets and the application of digital technologies to red meat supply chains and marketing were endorsed by the Partnership's Co-Chairs prior to the pandemic."

"The specific studies were commissioned mid-way through 2020, with preliminary findings presented at the Livestock Export Program's virtual conference on 14 December."

Dr Mullen says that, while the industry outlook was reported as pessimistic in October 2020, the rollout of vaccines in early 2021 has shifted sentiment and operations in both Australia and Indonesia are beginning to normalise.

ASSESSING MARKET OPTIONS ON FOREIGN SHORES

The Partnership study on beef processing and market options for Indonesia was conducted by ProAnd Associates Australia, with preliminary findings presented by the firm's Senior Consultant, Ms Winifred Perkins.

Ms Perkins revealed that, from a statistical point of view and given the outlook for market growth, there are three significant export targets for Indonesia: The People's Republic of China, Thailand, and Viet Nam.

"These markets were followed by the Philippines and Singapore," Ms Perkins added, "with the greatest potential being for Indonesia to export beef products in frozen and in processed form."

Ms Perkins said that ProAnd considered a range of factors in determining the markets with potential for Indonesian beef exports.

"Our considerations included beef import statistics to help indicate demand levels, the range of chilled and frozen cuts imported, existing and future tariff arrangements, current supply sources, and historical prices achieved," she said.

"It was noted, however, that obtaining the required approvals for the Chinese market might be complex and time-consuming."

The study also assessed the readiness of Indonesian abattoirs to achieve export status, determining that several beef processing plants should be able to meet international export standards in terms of construction materials and layout.

▼ Australian beef in an Indonesian supermarket
Photo Credit: Meat and Livestock Australia



These processing plants may, however, need to invest further in training as well as meat hygiene monitoring and systems control.

Issues to be addressed included traceability systems, procedures for managing and tracking worker hygiene, and product safety systems, all features of modern cold chain management in chief exporting countries.

Ms Perkins indicated that the study team had developed a 'Roadmap to Export,' identifying areas that Indonesia needs to address in preparation for export readiness.

The roadmap requires a coordinated set of responses from companies and bureaucracies in both countries (Indonesia and the target market) to clear the path for a successful export program.

For a copy of the full report on beef processing and market options for Indonesia, go to bit.ly/MarketOptionsStudy.

SEEKING DIGITAL EFFICIENCIES IN BEEF PRODUCTION

The project on digital technology options in the red meat and cattle sector aims to improve the profitability of beef producers and processors through technologies that can deliver production and marketing efficiencies.

The preliminary findings of the study were delivered by Dr Dahlanuddin, Professor in Animal Science at the University of Mataram in Indonesia, and Dr Risti Permani, Senior Lecturer in Agribusiness at Deakin University in Australia.

"Digital technologies are used extensively in the Australian red meat and cattle sector, from on-farm production, feedlots, processing facilities, logistics and cold chain linkages to retail sales and the consumer segment," Dr Dahlanuddin said.

He highlighted that, conversely, Indonesia's smallholder producers have yet to embrace technology in cattle production beyond the use of smartphones.

"Whilst smallholder farmers are interested in technology options and have the connectivity capacity to participate, they are reluctant to pay for technologies that don't provide

an immediate financial return or are not mandated by government," Dr Dahlanuddin said.

"The Government of Indonesia and several companies have developed information systems to monitor animal movement, behaviour, health, and nutrition, as well as digital platforms for livestock marketing, but their effectiveness and adoption rates could be improved."

According to the Partnership's digital technology study, some Indonesian feedlots are using radio-frequency identification (RFID) systems to comply with animal welfare standards imposed by Australian exporters, but in most cases, feed efficiency, cattle weight, and animal health information is still recorded manually.

"An opportunity therefore exists to automate information systems to improve efficiencies and the traceability of beef products," Dr Dahlanuddin said.



▲ An ESCAS approved abattoir in West Java Indonesia
Photo Credit: PT Pramana Pangan Utama

He pointed to livestock frozen product aggregator, Ternaknesia, as a prime example. The company has attracted crowdfunding investment of Rp40 billion by demonstrating the profitability of their operations.

A key component of Ternaknesia's success has come through improving its digital logistics systems for abattoirs, using global positioning systems and temperature sensors, along with an online auction system that minimises costs.

TAPPING INTO THE LUCRATIVE E-COMMERCE MARKET

Indonesia boasts an e-commerce market of around US\$14 billion, with shopping for groceries and essential items emerging as a key online activity.

While many of Indonesia's 160 million smartphone users were already engaged in internet purchasing prior to the COVID-19 pandemic, health regulations and behavioural changes have increased online uptake.

In March 2020, Bank Indonesia noted an 18.1% increase in the country's total e-commerce activity to 98.3 million transactions.

Importantly, nearly 70% of survey respondents in the digital technology study stated that they will continue to purchase beef online.

"E-commerce continues to grow exponentially in Indonesia and is no longer just a marketing option. It is now a necessity," says Dr Risti Permani of Deakin University.

"Additionally, more women are now participating in the Indonesian labour market and, with less time for shopping and other household chores, this is expected to further stimulate online purchasing."

According to Dr Permani, Indonesian beef businesses have responded by expediting the transition from offline to online sales and marketing.

"We are seeing the rise of omni-channel marketing strategies," she says.

"The growth of online marketing channels will not spell the end of offline presence and facilities. Instead, more businesses are adopting strategies that integrate online and offline, and business-to-business and business-to-consumer marketing, allowing trade partners and customers to seamlessly move across points of contact."

"These omni-channel strategies must be underpinned by fully integrated online systems that link all aspects of offline and online facilities, such as warehousing operations, sales and payments, resources, and customer services, among others."

The ability of Indonesia's red meat and cattle sector to embrace advanced production and marketing channels provides an entry point to a global digital market for food and beverages estimated to be valued at US\$236.5 billion.

For a copy of the full report on digital technology options in the Australian and Indonesian red meat and cattle sector, go to bit.ly/DigitalOptionsStudy.



▲ IACCB cow with RFID tag used to monitor its health and productivity

BREEDING PROGRAM LEAVES A LASTING LEGACY

Conducted over five years from February 2016 to February 2021, the Indonesia-Australia Commercial Cattle Breeding Program (IACCB) has changed the face of beef cattle breeding in Indonesia.

IACCB has been hailed by leading cattle industry veterinarian, Dr Ross Ainsworth, as “the best and most successful program I have worked on in 30 years”.

With a budget of AUD \$9.1 million over five years, the program aimed to establish commercially sustainable cattle breeding models that would lead to investment, innovation, and expansion of the beef cattle industry in Indonesia.

Over its duration, IACCB saw herd numbers in partner operations increase by 100%, with more than 2,500 calves born, while scaling-up strategies are forecasting a 2026 closing herd stock in excess of 6,000 cattle.

This successful collaboration has drawn plaudits from senior Australian and Indonesian government representatives.

“I really appreciate that IACCB has been very active in building relations and sharing its findings with the Government of Indonesia, especially the Ministry of Agriculture,” says Sugiono, Director of Livestock Breeding and Production in Indonesia’s Ministry of Agriculture.

George Hughes, Agriculture Counsellor at the Australian Embassy in Indonesia, agrees.

“The IACCB Program has helped bring all stakeholders together and has improved relationships between our two countries,” Mr Hughes said. “It has definitely improved the Government of Australia’s understanding of cattle breeding in Indonesia.”

Encouragingly, at program closure, IACCB partners had already invested around AUD \$5.75 million in their cattle businesses, indicating their confidence in the breeding models and their ability to drive further growth without direct IACCB support.

“We understand now that the key to cattle breeding is management,” says Suhadi, head of the Koperasi Produksi Ternak Maju Sejahtera (KPT-MS) smallholder cooperative in Lampung.

“Through our partnership with IACCB, we have to date sold 213 calves worth Rp2.1 billion.”

FINAL ASSESSMENT OF THE BREEDING MODELS

The IACCB Program tested four cattle breeding models: integrated oil palm and cattle production (SISKA); open grazing; a cut and carry model, where smallholder farmers manage cattle in a stockyard; and the SISKA breedlot model, where cattle graze in an oil palm plantation for around six months, prior to being placed in a breedlot before calving.

To assess all models for their commercial viability, IACCB partnered with eight project partners across five provinces and provided them with Brahman Cross cattle and high-quality technical assistance.

Production and financial data covering all four cattle breeding models were compiled from each partner over a four-year period, enabling IACCB to make confident judgments on the commercial viability of each model.

All four cattle breeding models were deemed to be commercially viable, although results were dependent on continuous professional cattle management.

SISKA, when implemented by large palm oil operators with sufficient land and capital, offers the best opportunity to drive industry growth.

“The key to success was the combination of two different operations, palm and livestock, into one harmonious process,” says Wahyu Darsono, Ranch Manager at Buana Karya Bhakti (BKB). “We had to pay particular attention to achieving productivity improvements and cost efficiencies for the cattle and also for the plantation.”

Overall, the IACCB Program proved conclusively that Brahman Cross cattle can breed in Indonesia, with positive commercial outcomes, a point that had previously raised conjecture

FOSTERING INDUSTRY KNOWLEDGE AND TRAINING

The IACCB Program has played a vital role in building skills for Indonesia’s cattle breeding enterprises, and in laying the foundations to share knowledge across the industry.

The program has been central to the establishment of several SISKAs and smallholder consultancy and training services, as well as Indonesia's first breeding manager certification scheme, operated through BNSP (National Professional Certification Agency).

These skill development centres, run by industry organisations, will ensure IACCB learnings continue to be shared among Indonesia's next generation of cattle breeders as well as by government representatives and the private sector.

IACCB also actively worked with the Government of Indonesia and the private sector to promote commercially successful breeding models and to encourage industry dialogue. These promotional efforts have included various cattle breeding symposiums and conferences as well as a 2020 webinar series that attracted over 4,000 participants.

Dr Soni Solistia Wirawan, Deputy Chairman of Agroindustry and Biotechnology with the Government of Indonesia's Agency for the Assessment and Application of Technology (BPPT), says the many events supported by IACCB over its five years contributed to scientific and industry consensus on cattle breeding models.

"We held events in collaboration with IACCB to gather with fellow researchers, academics, industry and government," Dr Wirawan says. "This allowed us to share research findings and also the challenges of breeding cattle in Indonesia. During these many conferences and meetings, we always worked to foster a better understanding of the cattle breeding models, their requirements for success, and their many benefits to Indonesian farmers."

Over the course of the program, IACCB also produced a range of unique investment tools and publications, which will remain accessible on Indonesian and Australian websites.

"The IACCB Program developed investment tools (CALPROF/CALFIN) and manuals that are very useful for the Indonesian industry and that anyone can try and use," says Syed Haider from Australia's Department of Foreign Affairs and Trade.

Wahyu Darsono of BKB, an IACCB partner firm, acknowledges this point.

"We have learned that the herd recording process is very important, especially to calculate and analyse cattle health,

nutrition, and mortality rates," Wahyu says. "The technology-based tools, CALPROF and CALFIN, developed by IACCB, are very helpful."



▲ PT BKB staff in South Kalimantan using CALPROF to record herd data

IACCB also supported improvements to iSIKHNAS, Indonesia's national integrated animal health surveillance system.

Initially established by the Government of Indonesia to record individual animal health issues, the iSIKHNAS system required further development and testing to ensure its application as an effective herd management tool.

Over two years, IACCB worked with Indonesia's Ministry of Agriculture to modify iSIKHNAS to include cattle herd assessments. This improved software was trialled at three IACCB smallholder sites and iSIKHNAS is now being used as a monitoring tool at district, provincial, and national government levels.

The IACCB Program has provided a wealth of knowledge that can now be drawn on to develop a thriving cattle breeding sector in Indonesia.

For more information on IACCB and its associated breeding models, visit iaccbp.org.

WOMEN CHART THEIR WAY FORWARD

One of the many beneficial unexpected outcomes of the IACCB Program was support from all levels of government in achieving partner and program goals.

Several smallholder partners received funds from local governments to improve their cattle breeding businesses. After a request from an IACCB partner, one local government also improved the roads on which cattle were transported, generating wider economic and social benefits for the local community.

An additional and particularly notable benefit of the program was increased employment opportunities for women.

IACCB worked with its partner enterprises to actively encourage the inclusion of women, particularly in tasks associated with feed provision, herd health, calf management, and administration.

As a result, local women gained employment in every IACCB project, in pasture development (casual roles in nursery maintenance and pasture propagation) and in permanent animal health and administration roles.

“The status of women in the village has improved,” says Suhadi of KPT-MS. “They are involved in our business and are now making money, improving their community. They have established supporting businesses around breeding, such as producing cattle feed or processing livestock products.”

The IACCB Program has supported more women to reach management roles, with examples such as Satia ‘Teta’

Pratiwi, who became head of business development with a prominent IACCB partner enterprise.

While she graduated with a degree in industrial engineering and has extensive experience in business development, Teta knew almost nothing about cattle breeding when her firm decided to establish a cattle operation within their 6,000 hectares of palm plantation.

She was soon in charge of the cattle and palm integration for her organisation, providing leadership across the male-dominated oil palm and cattle industries.

“Women and men must be given the same opportunities according to their abilities,” Teta says. “We should never set limits for women to work in this sector as long as they are capable of managing the positions.”

IACCB also assisted the 5,000-member, women-led cooperative *Kooperasi Serba Usaha Wanita Pusaka Pertiwi (KSU WPP)* in Medan to develop a cattle breeding pilot, which will be used as a demonstration and training site for interested women from local farmer groups.

The cooperative’s cut and carry model provides opportunities for women to increase their incomes from cattle breeding or from growing cattle feed on idle land.

IACCB has proven that, as the Indonesian cattle industry grows, employment opportunities for women will increase, especially in areas such as veterinary and feed nutrition services.

▼ Nursery worker at an IACCB partner site propagating improved pastures



ENSURING INDUSTRY GROWTH INTO THE FUTURE

Right from the program's beginnings in 2016, the Indonesia-Australia Commercial Cattle Breeding Program (IACCB) team worked to ensure that partner enterprises could operate independently and the industry could expand organically.

Throughout its five years of operations, IACCB prioritised commercial sustainability for its partner enterprises as well as the expansion of Indonesia's cattle breeding sector into 2021 and beyond.

This work included making vital contributions to training institutions and consultancy services, ensuring that technical and informational platforms remain widely available, and supporting ongoing dialogue between government and industry.

"The IACCB Program was the only comprehensive cattle breeding study encompassing various models

and is now viewed as an industry reference," says Mr Jody Koesmendo, Secretary General of the National Meat Board, feedlot owner, and Partnership member. "The program's results have been put into very useful guidelines for current operators and new investors."

As part of its future-proofing efforts, IACCB also played an active role in helping its partner enterprise Buana Karya Bhakti (BKB) establish a SISKAs (cattle under oil palm) training and consultancy business in South Kalimantan. This business is now delivering consultancy services, internships and training courses to advance SISKAs knowledge across Indonesia.

In addition, BKB has signed a Memorandum of Understanding with the University of Brawijaya (Malang, East Java) to be the institution's SISKAs training provider. The company will also train smallholder farmers through the Resource Development Program of the Palm Oil Fund Management Agency.

IACCB also provided curriculum development support to three smallholder partners who achieved accreditation to P4S (Pusat Pelatihan Pertanian Pedesaan Swadaya) status, which allows them to receive government support. All three partners are now providing training to students, government representatives, smallholder farmers, and other interested individuals.

The sector's future is further underpinned by smallholder business management services available through Gita Pertiwi.

- ▼ P4S Karya Baru Mandiri trainer providing training to university students and smallholder farmers on the cut-and-carry cattle breeding model



Gita Pertiwi, together with IACCB, developed an organisational strengthening approach specifically suited to smallholder cattle breeding cooperatives. The nongovernment organisation is now being engaged by Indonesia's District Livestock Offices to develop smallholder cooperatives and has provided advice for the Ministry of Agriculture's 1,000 Cattle Villages Program.

These privately run training and consultancy services will continue to play an important role in the development of a sustainable red meat and cattle sector in Indonesia and should, in time, produce a cadre of cattle breeding industry advocates.

Meanwhile, IACCB has ensured free and ready access to its Commercial Cattle Breeding Manual, SISKAProspectus, technical papers, technical and promotional videos, and industry tools (CALPROF, CALFIN, and CALPROS), providing current and potential investors with the impetus to grow or start their cattle breeding enterprises.

OVERCOMING INDUSTRY DEVELOPMENT CHALLENGES

IACCB identified a number of strategic issues that the Partnership can address to support the growth of the cattle breeding industry in Indonesia.

According to the program's Strategic Adviser, Mr Paul Boon, one such issue involves the traditional attitudes of oil palm plantation owners.

"Oil palm operators seem to have very fixed views about cattle under palm," Mr Boon says. "Many remain concerned about free range cattle introducing new

and unforeseen complications, affecting palm growth and oil production, and getting in the way of plantation operations."

"IACCB has already comprehensively addressed these issues, showing that cattle have no impact on soil compaction or the spread of Ganoderma - a fungus that can cause palm oil tree death and considerable productivity losses."

The program also developed integrated management systems that seamlessly align oil palm and cattle operations.

"Reputable plantations report that grazing actually increases palm oil yield by 4% to 5%," Mr Boon says, "That's a very significant commercial result considering the maturity of the palm oil sector."

Mr Boon insists that the key to changing entrenched oil palm industry views will be the continued promotion of IACCB results and tools, combined with providing a clear understanding of the benefits to long-term operators in the sector.

"Industry bodies (GAPUSPINDO, ISPI, GAPKI) are ideally placed to lead such promotions," he says.

"The sector must also look to develop and support credible industry advocates for cattle breeding in palm plantations (SISKA). It will likely take a number of key players in the oil palm industry to adopt the SISKA model before it reaches a tipping point and others follow."

The development of a prosperous cattle breeding sector also requires a more conducive regulatory environment, one that delivers financial incentives to invest or a more market-regulated price for beef.

Other areas to address include shortfalls in competent and experienced breeding managers and stockpeople, vaccines and quality pasture seeds, and quality shipping services for inter-island trade. There are also limited professional laboratories to analyse the nutritional value of stock feed.

“These issues may gradually be addressed once a critical mass of cattle breeding operations are up and running,” Mr Boon says. “Before then, immediate support may be needed to encourage more risk-averse investors to enter the industry.”

FUTURE DIRECTIONS AND THE ROAD FORWARD

One of the key goals of Indonesia’s Ministry of Agriculture is to increase breeder cattle numbers within oil palm plantations, pursuing the benefits of the SISKAs model. They intend to achieve this by collaborating with the private sector to develop commercial-scale and professionally managed cattle breeding operations, including the integration of cattle into oil palm plantations.

A presidential instruction on Sustainable Palm Oil also explicitly mentions SISKAs as a key activity and the Ministry of Agriculture is working towards adapting relevant regulations to encourage investment.

IACCB has laid a very stable platform to support the Government of Indonesia’s cattle breeding policies and plans.

The Partnership will continue to build on this platform and on IACCB strengths, most particularly the program’s credibility within industry and government. It aims to do this by expanding the promotional channels that communicate IACCB’s results and tools, by designing a program that actively supports Indonesia’s cattle breeding strategies, and by creating and implementing an industry skills development strategy.

For more information on the IACCB Program or a copy of the IACCB Activity Completion Report, visit iaccbp.org

▼ Healthy growers at PT BKB, South Kalimantan, a SISKAs (cattle under palm) cattle breeding operation



DESTINATION DIGITAL

The Partnership's assessment of technology options for the production and marketing of red meat in Indonesia provides a pathway to capitalise on a digital future.

Indonesian beef cattle breeders, feedlots, processors, and other red meat enterprises have a bold future if they can harness the capabilities and efficiencies of digital technology.

This is the view of industry experts such as Dr Dahlanuddin, Professor in Animal Science at the University of Mataram in Indonesia.

The professor attended the Livestock Export Program's virtual conference on the 14th of December 2020 to present the preliminary findings of the Partnership's study into digital technology options in the Australian and Indonesian red meat and cattle sectors.

"Australia's National Livestock Identification System gives it a comprehensive ability to identify individual animals via an electronic tag, trace cattle movement through to slaughter, and store this information for retrieval if needed," Dr Dahlanuddin says.

"This information underpins Australia's systems of disease control, biosecurity, food safety, product integrity, and export market access."

"Australian feedlots use relatively sophisticated technologies such as bunker scanning, while robotics are becoming more common in processing facilities. Barcodes, radio-frequency identification embedded in packaging, and temperature loggers are used throughout the logistics chain."

"Innovations at the retail end include smart packaging to improve shelf life and traceability, demand forecasting systems, and a wide range of e-marketing systems."

However, according to Dr Dahlanuddin, very few stakeholders in the Indonesian beef supply chain have access to, or make use of, digital technologies for production or logistics purposes.

"While some traceability of product is possible in Indonesia, this currently occurs mainly via manual records, which are subject to human handling errors and make for slow recall of information," Dr Dahlanuddin says.

Internet commerce, on the other hand, is being successfully applied in both Australia and Indonesia, better connecting beef producers and retailers with consumers.



▲ A drone being used to monitor cattle in Australia
Photo Credit: Meat and Livestock Australia

In Indonesia, the vast and active smartphone user base of around 160 million people is using social media and apps such as Tokopedia, Shopee, Bukalapak, Lazada, and Blibli to generate up to US\$14 billion in e-commerce transactions each year.

Shopping trends established during the COVID-19 pandemic, along with ongoing societal changes in Indonesia (notably the increasing number of women participating in the workforce), are expected to further strengthen the shift to online purchasing.

Many Indonesian beef producers and retailers have already turned to multifaceted marketing strategies that integrate their traditional production, distribution, and retail assets with a strong e-commerce presence.

The Partnership's assessment of Indonesia's digital technology status paved the way for the study team— comprised of academics from the University of Queensland, Deakin University, the University of Mataram, and IPB University— to advance a series of recommendations that will allow Indonesia to better grasp beef production efficiencies and marketing opportunities in an increasingly digital world.



▲ Indonesian cattle breeding staff using monitoring and evaluation software to record herd condition

The report's seven recommendations include:

1. The Government of Indonesia making available digital technologies for electronic cattle identification, such as ear tags and readers that use radio-frequency identification and or global positioning systems.
2. Developing a data management system, maintained by Indonesia's Ministry of Agriculture, to collect, store, and provide access to electronic cattle identification and traceability records.
3. Implementing a targeted education program on technologies available throughout the red meat and cattle supply chain, providing information on generating efficiencies, minimising errors in data handling, streamlining information flows, and adding value.
4. Undertaking research into the suitability of e-commerce platforms, assessing the services offered, business models used, and target markets accessed.
5. Assessing gaps in online beef marketing, including logistical issues, displaying Halal certificates, providing varied payment methods, and ensuring appropriate e-commerce information such as delivery tracking status, user reviews, and product wish lists.
6. Developing and improving cold chain and associated infrastructure to reduce e-commerce delivery times and costs, and to ensure that product quality and freshness is maintained until the product reaches the consumer.
7. Updating beef producers and retailers, especially small businesses, on evolving regulatory frameworks related to the e-commerce market and supporting systems such as digital payments.

For a copy of the full report on digital technology options in the Australian and Indonesian red meat and cattle sector, go to bit.ly/DigitalOptionsStudy.

INNOVATIVE TRAINING REFOCUSSES FARMING ATTITUDES

Even in the face of COVID-19 restrictions, the Partnership has found a way to launch a new cattle management training module and provide continuity for an existing program.

In late 2020, as the COVID-19 pandemic raged throughout many parts of the world, 27 representatives of the Indonesian cattle industry took part in the Partnership's first-ever Cattle Business Management for Commercial Smallholder Farmers training program.

The delivery of this short course, conducted from 24 November to 6 December 2020, highlights the Partnership's enduring commitment to support the red meat and cattle sector in Indonesia and was made possible by pioneering new online training methods.

Through the use of online streaming services combined with pre-recorded video content and case study materials prepared in digital formats, the course encouraged participants to manage their farms more efficiently and increase the value of their businesses through more profit-oriented management practices.

SMALLHOLDER FARMERS ENGAGE WITH ONLINE TRAINING

The Cattle Business Management for Commercial Smallholder Farmers course was facilitated by the Faculty of Animal Science of Gadjah Mada University (UGM), with opening remarks from Professor Ali Agus, Dean of the UGM Faculty of Animal Husbandry.

Dr. Panjono, one of the course facilitators from UGM, says the goal of the training was to change the mindset of smallholders so they see cattle farming as a profit-making business rather than as a subsistence activity or hobby.

"We train the participants on how to work in groups and create a more dynamic business," Panjono says.

"We also connect them with services they can use, for example banking and insurance, and teach them how they can gain access to finance."

The online course conducted in late 2020 included a presentation from a representative of Bank Rakyat Indonesia Agro, who showcased how smallholder farmers could access loans through the People's Business Loans (KUR) scheme.

Asuransi Jasindo provided information on how insurance can play an important role in cattle businesses, while PT Widodo Makmur Perkasa highlighted the commercial success of their smallholder farmer cooperative.

"Overall, the participants were enthusiastic and we had a lively training, even though we could not meet physically," Dr. Panjono says.

Pelatihan Manajemen Usaha Ternak Sapi untuk Peternak Kecil



Hari pertama pelatihan dibuka oleh Dekan Fakultas Peternakan UGM, Professor Ali Agus dan diikuti oleh 27 peternak, pendamping peternak, dan pengurus kelompok peternak di Indonesia.

Jadwal Pelatihan:
Tanggal 23 November 2020 - 6 Desember 2020

▲ The on-line Cattle Business Management for Commercial Smallholder Farmers course, facilitated by the Faculty of Animal Science of Gadjah Mada University

lin Sainah, one of the course participants from Kuningan in West Java, agrees, stating that the interactive training was highly informative and very useful.

“I was really engaged in the training, even though it was online. As a beginner smallholder farmer, I thought the materials were very comprehensive,” says Sainah, who is the first female cattle farmer in her village and the head of her local farmers group.

Having started her cattle farm with 10 cows at the beginning of April 2020, Sainah admits that her lack of experience meant she previously had reservations about expanding her business, especially because she had already spent most of her savings on the farm.

The Partnership training has, however, given Sainah new management tools and techniques and enabled her to think about the future in a more commercial way.

Following the training in late 2020, Sainah was able to purchase three cows in early 2021 after selling three during Eid Al-Adha at the end of July 2020.

“Alhamdulillah (Praise God), my farm has been going well,” Sainah says. “I’m grateful for the training from the Partnership. It has helped not only me but also members of my farmer group.”

Another participant, Sufyan Mashuri from East Java, says the course has helped him discover ways to endure the economic effects of the COVID-19 pandemic.

“The cost of animal feed was continuing to rise and I was worried if my farm could survive,” Mashuri says. “But, with the training, I now have knowledge on how to reduce my feed costs and improve my farm.”

Mashuri has a plan to lower feed costs by making his own feed concentrate, working together with other smallholder farmers.

In addition to herd management concepts, the Partnership’s course for smallholder farmers offered a dedicated session on gender equality and social inclusion, promoting women’s participation in the cattle industry.

As a female farmer, lin Sainah found this session especially relevant.

“I have more confidence now to lead my farmers group as a woman. That said, overall, I have never had a problem being a female farmer in my village. They all welcome and respect me.”

TRAINING BENEFITS REPLICATED FOR VETERINARIANS

Again, applying technological innovation to traditional capacity building, the Partnership was able to deliver a second instalment of its Cattle Reproduction Management for Veterinarians course, from the 7th to the 11th of December 2020.

Following on from the initial course conducted in July 2019, the 2020 online training program was facilitated by the Bogor Institute of Agriculture (IPB) and attracted 30 veterinarians from all over Indonesia.

IPB lecturer, Dr Muhammad Agil, who also facilitated the Partnership’s program on cattle pregnancy testing in May 2020, says the course coordinators worked well to reproduce both theoretical and practical aspects of veterinary science and cattle reproduction in a virtual environment.

"We utilized videos and case studies to make the lessons as interactive as possible," Dr Agil says.

"We made sure that practical and hands-on learning could be transferred into an online world. So, not only did we provide workshop materials, we also divided the participants into groups and gave them different cases related to cattle reproduction. These cases were then discussed and presented in class."

Dr Agil says the training also included comprehensive theoretical sessions. Some of the topics covered included the selection and basic protocols of the Breeding Soundness Examination (BSE), semen collection and evaluation through macroscopic and microscopic tests, frozen semen handling techniques, libido assessment systems, reproductive theory and pathology of cattle pregnancy, pregnancy examination techniques such as rectal palpation and ultrasonography, and the theory of cattle reproductive disorders and diseases.

Pandu Tokoh Amukti, a participant from the Bondowoso Department of Agriculture, says that, although the course was held virtually, the content and discussions were invaluable.

"I found that every aspect of the course was applicable in the field," he says.

As a veterinarian who works with cattle farmers in East Java, Amukti explains that one of the biggest challenges he faces is farmers' knowledge of maintaining cattle reproductive health.

"For the past month, I've been using the knowledge I got from the training and applying it to the problems that are faced by our farmers. And it works!"

Another participant, Syahrini Rauf from the South Sulawesi Provincial Official, says the training was highly beneficial for veterinarians working in remote areas, as it allowed the sharing of ideas on different cases and problematic issues.

"Discussing other cases related to cattle reproduction was really useful," Syahrini says.

For more information on the Partnership's Skills Development Programs, visit <https://redmeatcattlepartnership.org/project/3/capacity-building>



- ▲ The on-line Cattle Reproduction Management course, conducted twice during the pandemic, delivered in an engaging manner utilizing video and case studies

CARAKA'S CALLING



▲ Esdinawan Carakantara Satrija, veterinarian at PT Sulung Ranch in Central Kalimantan

The fourth instalment in our series on alumni of the Partnership's Skills Development Programs.

Name : **Esdinawan Carakantara Satrija**
Age : **28**
Institution : **PT Sulung Ranch, Central Kalimantan**
Region : **Central Kalimantan, Indonesia**
Course : **Reproduction Management Training Program**
Program Graduate: **2019**

Esdinawan Carakantara Satrija, or simply 'Caraka' to his friends, was born into a family of veterinarians—his main inspiration for becoming one himself.

"Both my parents are vets, but they are in a different specialization," the 28-year-old explains. "They are both academics and focus on diseases. As for myself, my passion is in animal husbandry and how to produce livestock efficiently."

Caraka is now a veterinarian at Sulung Ranch, a vast palm plantation in West Kotawaringin Regency in Central Kalimantan and one of the largest enterprises in Indonesia to implement the integrated oil palm and cattle (SISKA) breeding model.

Caraka has a variety of animal health tasks to perform around the plantation and it is not unusual for him to travel 90 kilometres in a day, conducting general health check-ups, pregnancy testing, and supervising the productivity rates of the cattle.

"It can be challenging because different herds are in different places and you only have a small window of time to check on them," Caraka says.

Thankfully, his experience in short courses conducted by the Partnership have Caraka well equipped for his demanding job.

In 2015, he graduated from the Bogor Institute of Agriculture (IPB) in West Java and was rated toward the top of his academic class.

He then moved with his wife to Central Kalimantan in 2018 and began working for Sulung Ranch, where he was introduced to the integrated oil palm and cattle system, a model he soon learned was distinctly different from feedlot farming methods.

In July 2019, Caraka had the opportunity to participate in the Partnership's Cattle Reproduction Management Training for Veterinarians, facilitated by senior experts from his alma mater, IPB.

"I had heard about the training from my colleagues at the ranch, who had joined other trainings where they were sent to Australia," the young veterinarian says.

“Then Dr (Muhammad) Agil, one of the course trainers and my former lecturer, recommended it to me.”

From the course, Caraka says he gained invaluable insights about cattle management and exchanged knowledge with other veterinarians who work in the same field.

Through a combination of theoretical and practical training designed for experienced veterinarians, Caraka also acquired new skills and says one he has found most useful is pregnancy checking.

“There are things that you only learn once you’re in the field.”

“For example, different breeds of cows require different approaches to take care of them. You don’t learn that on campus. That’s why the Partnership’s trainings and workshops are so useful.”

In December 2020, Caraka was also part of the training course’s second intake, again conducted by IPB but this time in an online setting due to the COVID-19 pandemic.

While the training could not be done on site in a hands-on manner, Caraka makes it clear that he still benefitted from the course, especially because it focussed on the cattle reproduction selection system.

“At Sulung Ranch, we use a natural breeding system under the palm trees,” he explains.

“In the second intake of the course, we learned about the bulls and the replacement system to make sure the productivity rate stays high. I can apply that knowledge on the ranch.”

“As well, the participants in the second intake were more diverse because there were some people from the Ministry of Agriculture.”

Caraka says he is grateful for the advice of course facilitators and participants in the training, especially given that there are sometimes difficult cases he has to handle on the plantation.

“One challenge is the age of some of the animals,” he says. “Many of the cattle are more than 10 years old and for cows to have calves at that age can pose more risks and they often have a slower recovery.”

In recent times, Caraka has been unable to travel because the management of Sulung Ranch imposed a lockdown to make sure everyone at the plantation stays healthy.

“The good thing is, we are free from Covid,” he admits. “For someone with my responsibilities, it would be difficult if we were exposed to the virus. Then there would be no leadership to make decisions on the cattle.”

With such a dedicated attitude, it’s clear that Caraka’s care for cattle is in his blood.

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▲ Caraka undertaking pregnancy testing at PT Sulung Ranch



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