

INDONESIA AUSTRALIA RED MEAT & CATTLE PARTNERSHIP

Newsletter

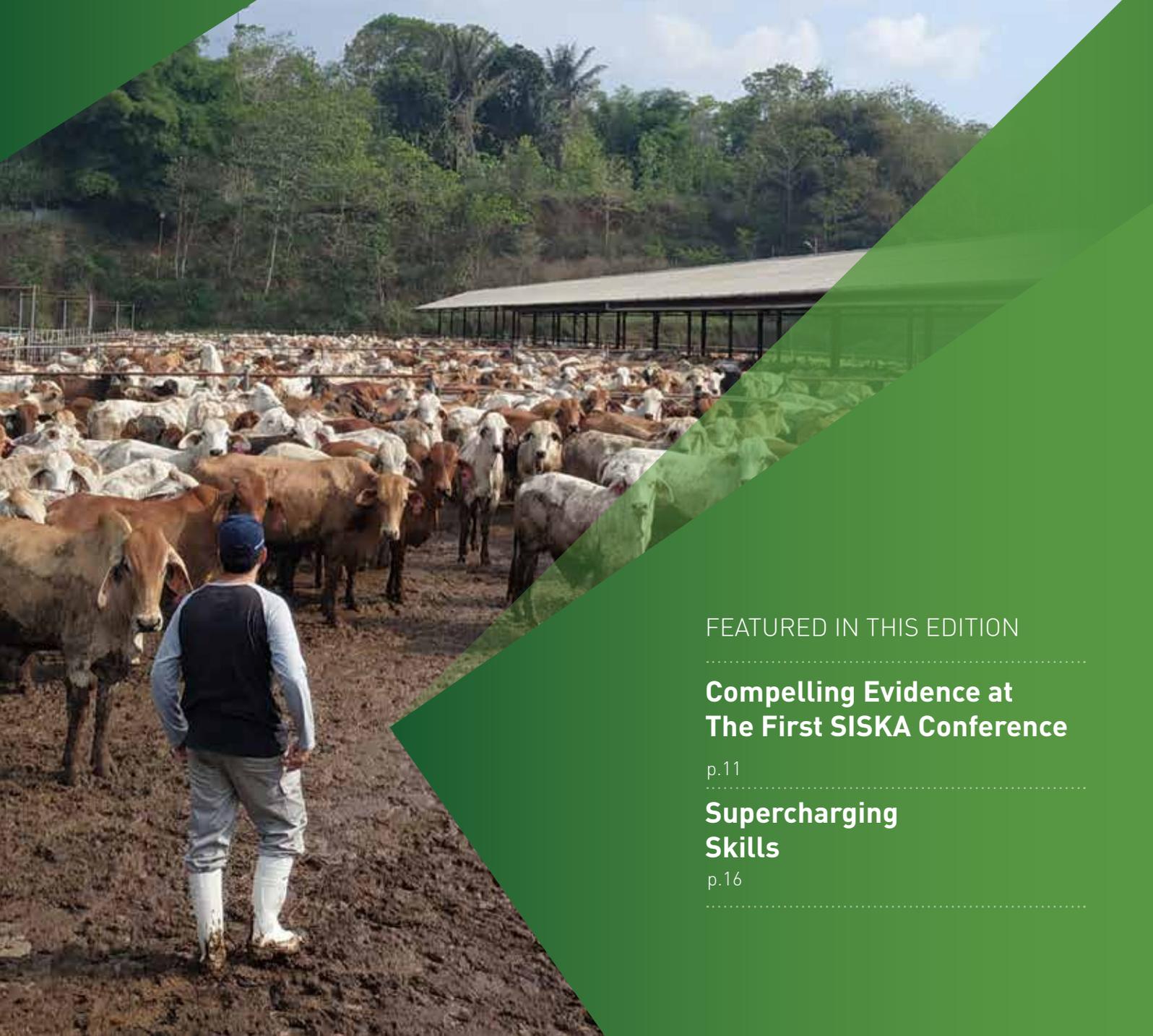
EDITION 5



Australian Government



BADAN KOORDINASI PENANAMAN MODAL



FEATURED IN THIS EDITION

**Compelling Evidence at
The First SSKA Conference**

p.11

**Supercharging
Skills**

p.16

THIS ISSUE

- 3 Foreword
- 4 Meeting Inspires Action, Innovation
- 8 Cattle Under Oil Palms: The Figures in Focus
- 11 Compelling Evidence at the First Siska Conference
- 14 Cut, Carry, Congratulate
- 16 Supercharging Skills
- 20 From Classroom to Cattle Station
- 22 Muhsin Pays it Forward

The Partnership bi-annual newsletter is the flagship publication of the Indonesia Australia Partnership on Food Security in the Red Meat and Cattle Sector (the Partnership). The newsletter is produced in both English and Bahasa Indonesia and helps to build awareness of the work and the achievements of the Partnership.

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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FOREWORD

A new decade holds new promise for the Indonesia-Australia Partnership on Food Security in the Red Meat and Cattle Sector (the Partnership).

Welcome to this fifth edition of our newsletter on the activities of the Partnership.

As we enter a new decade, with President Joko Widodo's address to the Australian Parliament in February and the Indonesia-Australia Comprehensive Economic Partnership Agreement (IA-CEPA) on the horizon, it is appropriate that we highlight some of the initiatives being undertaken to further strengthen ties between our two nations.

The eighth meeting of the Partnership in early November was an opportunity to showcase our completed program design document and to introduce our five industry reference groups, which were recommended as part of the updated program design and established to help define the Partnership's future priorities.

At the meeting, members of these reference groups were able to directly engage with one another and begin shaping the forthcoming activities of the Partnership. Their work will be of vital importance over both the short and long term.

The eighth meeting also provided a forum to address the issue of digital transformation in the red meat and cattle sector. Challenges and potential solutions were discussed at length, with delegates commending the digital technologies available to assist cattle farmers with finance and production, while also citing opportunities to use such technologies for the direct sale of livestock.

In response to our constantly evolving sector, the Partnership was pleased to unveil some significant technological advancements in the second half of 2019. A digital cattle monitoring system was developed in conjunction with the Indonesian Agency for the Assessment and Application of Technology (BPPT), and a suite of digital investor tools was released by the Indonesia-Australia Commercial Cattle Breeding (IACCB) Program. Both technologies were launched at the first Integrated Cattle and Oil Palm Production Conference in October.

That conference was the ideal platform to present the results of IACCB research into the commercial viability of raising cattle under oil palms (SISKA). Conducted over three years in larger oil palm plantations across South Kalimantan, Central Kalimantan, Bengkulu and Lampung, the study results provide vital evidence to encourage greater investment in the sector.

During 2019, the Partnership trained a further 117 Indonesians in cattle breeding and management, bringing the total number to 373 individuals who have been upskilled under the Partnership's training programs since 2013. Our commitment to skills development continues to expand with the introduction of new training initiatives for veterinarians, official certification for professional breeding managers, and a substantial increase in activity under our internship program for animal husbandry students who have recently graduated.

Putting a human face to these endeavours, it is heartening to read about the pastoral experiences enjoyed by Animal Husbandry students such as Wahyu Jaelani and Gina Arya, as well as the commercial knowledge being gained by young interns like Mardiah Nur Akhidatun Anisa and Bintang Setia. Meanwhile, the devotion of training alumnus Muhsin Al Anas provides inspiration for anyone who is committed to improving our industry.

Since the last newsletter, Chris Tinning has joined the Partnership as the new Australian Co-Chair. Thank you to Jodie McAlister for her hard work as acting Co-Chair.

We hope you enjoy this edition of our newsletter.

Mr Chris Tinning
(Australian Partnership Co-Chair)



Mr Wisnu Wijaya Soedibjo
(Indonesian Partnership Co-Chair)





▲ Indonesian and Australian Co-Chairs led the 8th Partnership Meeting in Bali, Indonesia

MEETING INSPIRES ACTION, INNOVATION

Tangible action plans and pathways to the digital economy were core agenda items at the eighth meeting of the Partnership, held in Bali, Indonesia in early November.

As the Partnership entered its second phase during 2019, its goals for developing the red meat and cattle sector became even more ambitious.

This robust attitude was reflected at the eighth meeting of the Partnership, where a progressive and proactive mood was evident among key members, government officials and industry observers.

Co-Chairs Mr Wisnu Wijaya Soedibjo and Ms Jodie McAlister underlined the importance of the meeting to develop clear guidance on the Partnership's future activities and to advance the industry's participation in digital environments.

Mr Soedibjo highlighted the vital role of the five industry-led reference groups that were established following

recommendations in the program design document for the Partnership's second phase.

"This meeting promotes direct engagement between reference group members to clearly identify the Partnership's future priorities," Mr Soedibjo said.

"It also encourages dialogue between industry and government representatives of our two countries on how we can respond to digital transformation in the sector."

Ms McAlister, meanwhile, placed the Partnership's 2019 achievements in the context of its broader objectives.

"This year alone, the Partnership has trained over 117 Indonesians in commercial cattle breeding and management, and has produced software and tools to help potential investors plan for entering the cattle business," Ms McAlister said.

"This is an important milestone to help accelerate the commercial viability of the cattle breeding business in Indonesia."

BREEDING MODELS ARE COMMERCIALY VIABLE, STUDY SAYS

One of flagship Partnership's programs is promoting the commercial cattle breeding business in Indonesia by piloting three breeding models. Since 2016, the Partnership supported studies to assess the commercial viability of the three breeding models tested under the IACCB Program.

Mr Paul Boon, IACCB Strategic Program Advisor, presented the outcomes of this assessment at the eighth meeting of the Partnership.

Highlights from the assessment of the three models are:

Integrated cattle and palm oil production (SISKA) is a promising model with an internal rate of return

(IRR) of 10% to 16%. The model also has a positive cashflow starting from the fourth year.

The open grazing model requires low initial investment and operational costs, but achieving the necessary growth rates of cattle requires development of improved pastures. This model has an IRR of 10% and is producing feeder cattle (cattle of about 320 kilograms as imported from Australia) at lowest cost (\$3.20 per kilogram).

The smallholder breedlot or cut-and-carry model provides excellent results for calving and weaning rates, promising IRR of 12%, and positive cashflow by the third year.

However, there are major risks around the communal systems and technical challenges associated with this model, including cohesion of the

farmer groups or cooperatives, access to finance to ensure continuity in feed supply and maintaining the condition of the herd throughout the dry season.

Partnership Co-Chair Mr Wisnu Wijaya Soedibjo was pleased that, after three years engagement with the IACCB Program, Indonesia has three breeding system choices, all of which can potentially be profitable. "We must now find ways to promote these commercial opportunities in cattle breeding and encourage expansion of the industry through investment," Mr Soedibjo said.

For more information on each breeding model, visit iaccbp.org



▲ The 8th Partnership Meeting promotes direct engagement between reference group members to clearly identify the Partnership's future priorities



▲ At the eighth meeting of the Partnership, each reference group engaged in detailed dialogue to identify their key priorities and develop tangible action plans.

GROUPS GET TO WORK ON ACTION PLANS

The Partnership's program design document, which was completed and endorsed in the first half of 2019, sets the strategic direction for the second phase of collaboration between Indonesia and Australia in the red meat and cattle sector.

Among the key recommendations in the document was the establishment of industry reference groups, led by specialists in each priority area, to help create clear priorities for the Partnership's endeavours.

The five reference groups that have since been created are • Investment • Supply Chain • Innovation and Exports • Capacity Building • Communications.

At the eighth meeting of the Partnership, each reference group engaged in detailed dialogue to identify their key priorities and develop tangible action plans.

Among the many and varied commitments set down for the first half of 2020, the Investment reference group will develop clearly defined marketing materials for potential investors, including realistic commercial barriers, opportunities and risk ratings.

The Supply Chain group will review all supply chain research and actively oversee the Indonesia-Australia Commercial Cattle Breeding (IACCB) Program to ensure it delivers desired outcomes in its final year.

The Innovation and Export group will focus on product integrity and marketing, where quick wins could be realised. It will initiate a study to increase yields from current production and determine a shortlist of products that can help bolster Indonesia's exporting efforts.

The Capacity Building group will review past and present training programs, including those delivered in Vietnam, then determine the need for more targeted training courses.

Among other tasks, the Communications group will review and refine the Partnership's communications strategy to reach more targeted audience groups and stakeholders in Indonesia and Australia in promoting Partnership's objectives.

DIGITAL THINKING TO SHAPE FUTURE EFFORTS

Delegates to the eighth meeting of the Partnership were asked to consider how the red meat and cattle sector might adapt and evolve to take full advantage of the emerging digital economy.

To inspire lateral thinking, delegates heard from two prominent experts on the future of the sector.

The first speaker was Mr Juan Permata Adoe, Indonesian Partnership member and Deputy Chairman of the Food and Cattle Industry division of the Indonesian Chamber of Commerce and Industry (KADIN).

Mr Adoe presented KADIN's Industrial Study for the Formulation of Beef Commodity and Cattle Cultivation. The study presents a comprehensive approach to developing Indonesia's red meat and cattle markets, including strategies to promote greater per capita consumption of beef in the country.

The second speaker was Mr Pamitra Wineka, the president and co-founder of TaniGroup, a start-up company working on the agriculture supply chain, e-commerce and crowdfunding.

Mr Wineka provided an overview of digital technologies in the Indonesian agriculture sector, their success and challenges, as well as future trends.



▲ Mr Juan Permata Adoe presented KADIN's Industrial Study for the Formulation of Beef Commodity and Cattle Cultivation Roadmap

Attendees then discussed how digital technologies are changing the way the sector operates, how the Australian and Indonesian industries are responding to those changes, and how the Partnership can promote innovation within the sector.

Following these deliberations, the Partnership's Innovation and Exports reference group recognised the need to review the sector's existing digital capacities and initiate a scoping study of digital technologies that could be used to drive industry growth.

For the official communique of the eighth Partnership meeting, visit redmeatcattlepartnership.org/partnership-meeting

CATTLE UNDER OIL PALMS: THE FIGURES IN FOCUS

An analysis of production costs, operational expenses and returns on investment reveals the financial merit of grazing cattle within oil palm plantations.

In November 2019, the Indonesia-Australia Commercial Cattle Breeding (IACCB) Program released the long-awaited results of research into integrated cattle and oil palm production (SISKA) in Indonesia.

Conducted over three years in larger oil palm plantations across four Indonesian provinces, the research concluded that well-managed SISKA enterprises have strong commercial potential.

"SISKA enterprises can produce feeder cattle at an average of 320 kilograms for around the same or lower liveweight cost than the cost of imported Australian Brahman Cross feeders," said IACCB Strategic Program Advisor, Mr Paul Boon.

"Production costs in Australia are approximately 30% cheaper than in Indonesia, but the freight cost from Australia adds about 25% to CIF (cost, insurance and freight) costs."

▼ Ranch workers provide water for the cattle at PT BKB, one of IACCB's partners for SISKA

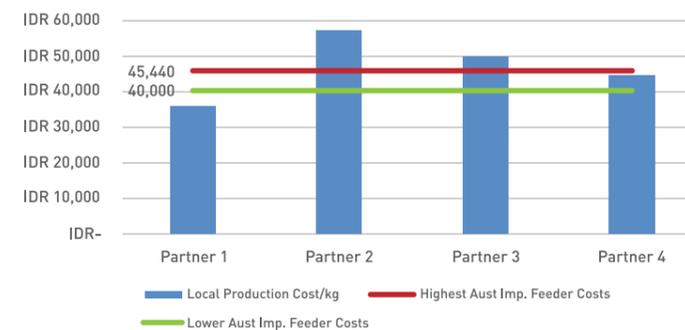


CRUNCHING THE NUMBERS ON VIABILITY

The IACCB research took into consideration the outcomes of SISKA projects at four commercial plantations across Indonesia: PT Buana Karya Bhakti in South Kalimantan; PT Kalteng Andinipalma Lestari in Central Kalimantan; PT Bio Nusantara Teknologi in Bengkulu; and PT Superindo Utama Jaya in Lampung.

Our modelling particularly highlights the economies of scale and returns on investment achieved when comparing organic herd growth from 300 to 750 breeders, with purchasing an additional 300 breeders in year four to grow the herd to 1300 head by year 10. The organic growth model is less likely to be of interest to a commercial company level, whereas the more rapid scale-up shows considerable promise.

Est. Local Feeder Production Costs vs. Aust. Imp. Feeder Costs
Weight at 320 kg



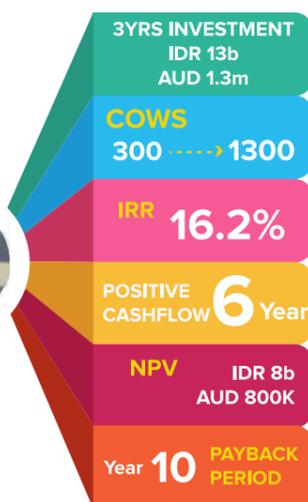
Highlights of the research findings include:

- One SISKA project was able to produce feeder cattle for less than the lowest cost for imported Australian feeder cattle.
- Calving rates varied between a low of 43% and a high of 69%, with calf mortality rates ranging from 5% to 15%.
- Average daily gains across the four projects ranged from 0.3 kilograms to 0.6 kilograms per head per day.
- A positive cash flow can be achieved by the fourth year under the SISKA model.
- The projected internal rate of return on the investment in cattle grazing is between 10.7% and 16.2%.
- For a herd of 300 cows allowed to increase organically over 10 years, the net present value at the 10th year is relatively low at about \$58,500 (with 750 cows in the herd by the 10th year).
- For an initial herd of 300 cows supplemented by an additional 300 cows procured in the fourth year, the net present value increases to about \$800,000 (with 1,300 cows in the herd by the 10th year).

ORGANIC HERD GROWTH STRATEGY SISKA



INVESTING STRATEGY SISKA (Year-4 Adding 300 hd)



KEY PARAMETERS

- Calving rate 70%
- Bulls 100% sold
Heifers 95% retained
- ADG 0,4kg/d
- Feed IDR 5,000 (AUD 50cts)
- Ops. IDR. 4,500 (AUD 45cts)

EXPERTISE IS ESSENTIAL TO REALISING POTENTIAL

The IACCB experience has proven that sustained commercial viability of the SISKAs model can only be achieved when the plantation operations and the cattle enterprise become mutually supporting.

In other words, the plantation provides feed (native grasses, palm fronds and palm kernel cake) for the cattle, while the cattle eliminate the need for weeding services and deposit organic matter that potentially increases fresh fruit bunch yields.

Under the SISKAs model, professionally managing the herd is the key to commercial success. It is especially important to ensure that key productivity indicators, such as weaning rates and average daily gains, are reached in an efficient and cost-effective way.

Achieving these outcomes requires access to experienced staff, from ranch managers to wranglers, who have a passion for the cattle industry. These people possess the technical skills and experience to proactively identify issues in the herd and take immediate action.

A lack of suitable cattle industry managers and supporting staff in Indonesia is presently the key barrier to industry growth, and this is why the Partnership continues to invest heavily in skills development within the Indonesian sector (see article on page 16).

REAL WORLD EXAMPLES OF SISKAs SUCCESS

Commercial potential is perhaps best measured by the desire of enterprises to invest more money.

After experiencing positive outcomes using SISKAs, two IACCB project partners have each decided to invest more than \$500,000 to expand their herds, build additional infrastructure, and procure equipment.

In South Kalimantan, PT Buana Karya Bhakti is planning to expand its herd to 600 productive cows by acquiring another 300 head. The company is also establishing a SISKAs Centre of Excellence, which will function as a training centre for people from government and the private sector.

In Lampung, PT Superindo Utama Jaya is expanding their Nakau herd to 1,000 head, including about 550 female breeding stock comprised of around 50% Brahman Cross and 50% local cattle. The company is also investing in the expansion of infrastructure and the development of 30 hectares of pasture.

In Central Kalimantan, PT Kalteng Andinipalma Lestari is discussing plans to scale up its cattle breeding enterprise through an increase to the cattle herd, an expansion of grazing areas, and the development of more pasture.



▲ PT SUJ is investing in the expansion of infrastructure and the development of 30 hectares of pasture.

COMPELLING EVIDENCE AT THE FIRST SISKAs CONFERENCE

The Partnership and the Indonesian Agency for the Assessment and Application of Technology (BPPT) have united to host a landmark event in the cattle breeding sector.



▲ ICOP 2019 was attended by over 240 participants and involved more than 20 speakers, including international players from Malaysia, Australia and Papua New Guinea.

In 2018, 40% of total domestic beef consumption in Indonesia was met by imports. That percentage could be significantly reduced if beef cattle were integrated into even a small portion of Indonesia's estimated 14 million hectares of oil palm plantations.

For these reasons, the Partnership and BPPT combined their resources to host the inaugural Integrated Cattle and Oil Palm Production (ICOP) Conference in Jakarta in late October 2019.

The conference was the first forum between Indonesia and Australia that specifically discussed the integration of cattle and oil palm production (otherwise known as SISKAs), including the commercial opportunities, the day-to-day operational issues, and the inherent challenges of the business model.

ICOP 2019 was attended by over 240 participants and involved more than 20 speakers and research reviewers, including international players from Malaysia, Australia and Papua New Guinea.

"We held this event in collaboration with IACCB together with fellow researchers, academics, industry and government to share research

findings and address the challenges of the SISKAs model," said Dr Soni Solistia Wirawan, Deputy Chairman of Agroindustry and Biotechnology for BPPT.

The main challenge in increasing Indonesia's cattle population is low investment in cattle breeding, which is still considered to be a business with high entry and operating costs and low profitability.

However, there was significant evidence presented at ICOP 2019 to refute misconceptions about the commercial viability of well-managed SISKAs enterprises.

SUPPORT FOR SSKA IS STACKING UP

At ICOP 2019, delegates were particularly interested in presentations from Sawit Kinabalu Farm in Sabah, Malaysia as well as New Britain Palm Oil in Papua New Guinea. Both plantations have a long and successful history of integrating cattle with oil palms.

Sawit Kinabalu Farm provided evidence dating back to 2002 of increased oil palm yields and compatible cattle rearing on their estate.

New Britain Palm Oil demonstrated how reducing oil palm density to 50% (a half stand system) led to improved pasture growth that maximised beef production, while still consistently achieving fresh fruit bunch yields equal to 68% of full stands. Profitability from the SSKA program was over \$6,500 per hectare—39% more than for the full stand oil palm system with no cattle.

BPPT also presented data from its five-year research project on smallholder farms that are using the SSKA model in Riau province. Results showed that well-organised farmer groups are capable of improving productivity using agricultural by-products.

To supplement this research, BBPT outlined its initial findings on the impact of cattle on disease spread, soil quality and fresh fruit production. Importantly, it reported that cattle grazing had no significant impact on the spread of the Ganoderma fungus, which can cause devastating basal stem disease in oil palms. The soil quality and fruit production studies were inconclusive at the time of ICOP 2019, with results expected in early 2020.

Rounding out the case for the SSKA model, Mr Paul Boon from the Indonesia-Australia Commercial Cattle Breeding (IACCB) Program presented the results of research conducted over three years in larger oil palm plantations across South Kalimantan, Central Kalimantan, Bengkulu and Lampung.

Key results of this research included an internal rate of return on cattle investment of between 10% and 16%, positive cash flow beginning in the fourth year, and a payback period of eight to nine years (for further details, see the article on page 8).

These results generated considerable interest from oil



▲ Sawit Kinabalu Farm provided evidence dating back to 2002 of increased oil palm yields and compatible cattle rearing on their estate.

palm company representatives, government officials, the Indonesian Oil Palm Association (GAPKI) and the Indonesian Beef Cattle Business Association (GAPUSPINDO).

“In my opinion, results from studies like this should be replicated to other regions,” said Joni Liano, Executive Director of GAPUSPINDO.

Sri Widayanti, Feed Director at the Directorate General of Livestock and Animal Health in the Ministry of Agriculture, reiterated Joni’s confidence.

“I am optimistic that, if we are serious, the integration of cattle and oil palms will accelerate the productivity of both the cattle and the oil palms,” she said.

ICOP 2019 also explored integration challenges, cattle feeding systems, reproductive performance, animal health and financial analyses of the SSKA model. While challenges remain, the overall message was that integrating cattle into oil palm plantations held great commercial potential.

This potential was highlighted by Mr Wisnu Wijaya Soedibjo, Co-Chair of the Partnership and Deputy Chairman for Investment Cooperation of the Indonesia Investment Coordinating Board.

“Cattle breeding on oil palm plantations can provide additional income streams, reduce production costs, and increase productivity for plantation owners,” Mr Soedibjo concluded.

For more information on the 2019 ICOP Conference, visit www.icopconference.org



▲ BPPT, BKPM, and the Australian Government with all of the 2019 ICOP participants

KICKSTARTING THE DIGITAL TRANSFORMATION

At ICOP 2019, the Partnership’s IACCB Program launched a suite of three investor tools to help enterprises plan, manage and monitor their cattle breeding businesses more effectively. These digital tools are designed to assist all industry participants, from smallholder farmers to cattle and financial companies.

CALFIN helps institutional investors and cattle breeding businesses make informed investment decisions. The Microsoft Excel-based spreadsheet determines production over a 10-year period to generate a series of reports including cash flow, net present value, internal rate of return, return on investment, and payback period. It will be an invaluable tool for enterprises in the cattle sector as well as banks, financial institutions, and government agencies.

CALPROS is a Microsoft Excel-based spreadsheet tool for new or small-scale breeding enterprises. It allows

these enterprises to monitor operational activities and the productivity of cattle and their offspring.

CALPROF is a livestock management software system for larger cattle breeding businesses. It supports day-to-day operations in cattle breeding, fattening and feed processing. The software has integrated features that manage productivity (e.g., pregnancy tests, weighing, calving) linked to financial data (e.g., feed costs, cashflow), and operational data (e.g., shipments, procurement, feed intake and nutrition, concentrate formulation and production, animal health, cattle movements).

For more information, or to download the investor tools, go to iaccbp.org/investor-tools

CUT, CARRY, CONGRATULATE

The Indonesia-Australia Commercial Cattle Breeding (IACCB) Program has officially rewarded the efforts of two successful cut-and-carry project partners.

Smallholder cattle breeding cooperatives in South Lampung and East Java have been granted ownership of their imported cattle after meeting significant breeding criteria.

Both groups, Koperasi Petani Ternak Maju Sejahtera (KPT MS) and Sentra Peternakan Rakyat Mega Jaya (SPR MJ), have worked with the IACCB Program for around two and a half years to develop their cut-and-carry breeding models.

Each has shown that key performance indicators—such as conception, calving and weaning rates as well as cost-efficient average daily gains—can be achieved if their enterprises are well managed.

Under the program agreement, the cattle would become formally owned by the smallholder collectives once each cooperative had proven its commercial credentials.

Mr Paul Boon, IACCB Strategic Program Advisor, confirmed that KPT MS and SPR MJ had passed the program's commercial viability assessment process.

"Both groups have shown good efforts in improving livestock productivity, controlling costs, and managing a conducive business climate," Mr Boon said.

"With these handovers, we officially transferred ownership of the Brahman Cross cattle to the two farmers' organizations."

"They now have full management rights to the cattle to help further improve the welfare of local farmers and contribute to increase Indonesia's cattle population."



▲ KPT-MS in Lampung had produced 239 calves and were awaiting birth from 21 pregnant cows.

RESULTS GET REWARDS FOR SMALLHOLDERS

KPT MS, comprising 37 breeder groups in South Lampung, joined the IACCB Program in April 2017 and received 100 Brahman Cross heifers and six bulls from Australia.

By December 2019, the cooperative's breeders had produced 239 calves and were awaiting births from 21 pregnant cows. Recent pregnancy tests indicate that an estimated 260 calves will be born within a three-year period.

Of the calves born, 169 have been sold at a total value of Rp1.7 billion.

KPT MS officially received ownership

of the Brahman cross cattle on 30 September 2019.

At the handover event, the Regent of South Lampung, Mr H. Nanang Ermanto, expressed his pride in the members of KPT MS.

"These breeders have made KPT MS one of the most profitable livestock cooperatives in South Lampung," Mr Ermanto said.

"They are helping to position South Lampung as an example for the development of national farms."

In East Java, SPR MJ also received 100 Brahman Cross heifers and six bulls from Australia, and succeeded in producing 143 calves. The cooperative is also



▲ In East Java, SPR MJ succeeded in producing 143 calves.

awaiting the birth of another 42 calves.

From the 143 calves raised, 121 have been sold at a total value of Rp881 million.

For this success, the IACCB Program officially transferred ownership of the Brahman Cross cattle on 7 October 2019.

Acting Head of the Bojonegoro District Animal Husbandry and Fisheries Services, Ms Catur Rahayu said the success of the cooperative could be used to inspire others.

"SPR Mega Jaya has proven its success and diligence in caring for and managing Brahman Cross cattle from Australia," Ms Rahayu said.

"Their success can be an example for other smallholder farmers in East Java, particularly in developing a profitable cattle breeding business."

A third cut-and-carry project partner, Pusat Pelatihan Pertanian dan Perdesaan Swadaya (P4S) Karya Baru Mandiri (KBM) in Central Kalimantan, joined the IACCB Program in late 2018.

P4S KBM is currently raising the progeny of 20 pregnant heifers delivered from Australia in February 2019. All calves have been weaned, and the majority of cows have already conceived again.

P4S KBM will undergo a commercial viability assessment after 18 months of involvement in the program.

COOPERATIVE HEADS PRAISE PARTNERSHIP WITH IACCB

"From our partnership with the IACCB, we get opportunities to partner with other institutions, such as Bank Indonesia, who have helped provide cattle pens and warehouses to keep cattle feed. Universities in Lampung have also provided technical assistance to develop livestock-based tourism. We are also currently negotiating potential partnerships with feedlot companies. Before the partnership with the IACCB, there was not a single feedlot that was interested in working with us."

— Mr Suhadi, head of KPT MS

"SPR is proud to work with the IACCB because this is the only livestock group that breeds Brahman Cross cattle in East Java. Farmers have the opportunity to learn the business of commercial cattle breeding and benefit from the business. With this collaboration, the village is more widely known by district and provincial government officials in East Java, so that the local government improved road access to the village, which was originally very remote and difficult to reach."

— Mr Darwanto, chair of SPR Mega Jaya

▼ One of the in-class trainings provided by IACCB for KPT-MS in Lampung



SUPERCHARGING SKILLS

In 2019, the Partnership continued to expand the skills base of Indonesian cattle professionals, introducing several new training initiatives.

Since its inception in 2013, the Partnership has maintained a strong focus on exchanging knowledge and developing skills to enhance the Indonesian red meat and cattle sector.

Initiatives such as the Skills Development Short Course Program, the Commercial Cattle Breeding and Management Training Program, and the NTCA Indonesia-Australia Pastoral Program (NIAPP) have now trained hundreds of Indonesian participants in all aspects of commercial cattle breeding.

Despite this established success, the commitment to sharing knowledge between Australian and Indonesian cattle experts continues to grow.

▼ Cattle Reproduction Management Training for Veterinarians cover topics such as animal reproduction, animal health and specific reproduction management within a cattle breeding enterprise.



Across 2019, the Partnership launched new training initiatives in reproduction management and pregnancy testing for veterinarians and veterinary paramedics, implemented a new certification scheme for professional breeding managers, and ramped up its internship program for animal husbandry graduates.

REPRODUCTION MANAGEMENT TRAINING

Because animal health and reproduction play a pivotal role in the success of any cattle management program, the Partnership identified the need for more specific training of Indonesian veterinarians involved in cattle breeding operations.

To equip veterinarians with adequate technical and practical knowledge on reproductive techniques, the Partnership hosted the first intake for its Reproduction Management Training course from 15 July to 19 July 2019.

Facilitated by Bogor Agricultural University (IPB), the training involved classroom-based learning on topics such as animal reproduction, animal health and specific reproduction management within a cattle breeding enterprise.

A total of 17 participants visited the research facility at IPB, as well as making a field trip to PT Lembu Jantan Perkasa in Serang, Banten.

Dr Srihadi Agungpriyono, the Dean of the Faculty of Veterinary Medicine at IPB, says institutions— including universities, nongovernment organisations, government agencies and private sector companies—need to work together to identify and solve reproduction issues within the Indonesian cattle industry.

“This is why reproduction management training for veterinarians is important,” Dr Agungpriyono says. “There are three pillars that ensure success in cattle reproduction—the animals, the environment and the human resources.”



▲ Veterinary paramedics can play an important role in monitoring reproductive efficiency and detecting problems early in a cow's pregnancy cycle.

PREGNANCY TEST TRAINING

Veterinary paramedics can play an important role in monitoring reproductive efficiency and detecting problems early in a cow's pregnancy cycle.

Unfortunately, however, many paramedics in the field lack the skills to conduct proper pregnancy testing processes.

For this reason, the Partnership held its first round of Pregnancy Test Training for Veterinary Paramedics from 5 August to 26 August 2019.

The training was facilitated by the National Artificial Insemination Center (BBIB) in Singosari, Malang, a research facility owned by Indonesia's Ministry of Agriculture.

There were 15 veterinary paramedics who participated in the training, each selected from various cattle breeding operations, including feedlot companies, integrated cattle and oil palm enterprises, and smallholder farmers groups.

Nova Oktalia, a paramedic for the Sawah Boncah Farmers Group in West Sumatra, says the training she received was very useful.

She points out that many smallholder farmers are often not aware of when their cows have fallen pregnant, or if there is a problem with the pregnancy.

“If I can do the test and assess the pregnancy earlier, then I can inform the farmers to quickly make a decision,” Nova says.

CATTLE BREEDING AND MANAGEMENT TRAINING

From 1 September to 25 September 2019, the Partnership successfully held the fourth round of its popular Commercial Cattle Breeding and Management Training Program.

Designed for professionals from across the Indonesian cattle industry and facilitated by Gajah Mada University (UGM), the course provides insights into sustainable and commercially feasible breeding and production methods.

The 20 participants in the program's fourth intake undertook classroom-based lessons at UGM, observed cattle management models at commercial sites in Central Java and Central Kalimantan, visited an open grazing research facility owned by Indonesia's Ministry of Agriculture, and travelled to Australia for 10 days of knowledge exchange with their southern counterparts.

A total of 80 participants from across 39 cattle breeding enterprises have now participated in the Commercial Cattle Breeding and Management Training Program.

BREEDING MANAGER CERTIFICATION

As part of the Commercial Cattle Breeding and Management Training Program, the Partnership has collaborated with the Indonesian Livestock Professional Certification Agency to launch a certification scheme that confirms the credentials of professional breeding managers.

The assessment for this professional certification is conducted in both theoretical and practical areas to measure the knowledge and technical capabilities of participants in breeding management.

With 29 participants certified in March and a further 14 recognised in August, the Partnership was able to officially



▲ Breeding Manager Certification measures the knowledge and technical capabilities of participants in breeding management.

certify a total of 43 professional breeding managers during 2019.

Breeding Manager of Great Giant Livestock, Paulina Yuniarsih, who received the certification, says the scheme will help professionals like her to continue to innovate and keep their qualifications up to date.

“The certification adds value to my work,” Paulina says.

Meanwhile, Lidwina, who also went through the certification, believes getting the certificate proved she has the knowledge and skills to thrive in her career and future. “This will be useful for my career as a breeding manager,” she added.

ANIMAL HUSBANDRY INTERNSHIPS

During 2019, the Partnership made major strides in developing its Internship Program in collaboration with the Indonesian Society for Animal Husbandry (ISPI).

The program allows Indonesian Animal Husbandry graduates—particularly those who have undertaken NIAPP—to gain work experience over three months with large-scale cattle breeding enterprises.

“It’s an important program to improve the skills and expertise of graduates,” says Muhsin Al Anas, who is a NIAPP graduate, a lecturer at UGM, and the coordinator of the Internship Program from ISPI.

“Participants are able to know in detail the business processes within the industry, something that they will not have been exposed to on a university campus.”

Not only does the Internship Program provide stronger pathways to employment for the interns, it gives the hosting commercial enterprises a mechanism to identify potential employees and recruit future industry leaders.

The Partnership supported 25 new graduates to do an internship under the program in 2019, with a rigorous selection process in place to ensure that 25 of the brightest graduates will benefit from internships each year into the future.

With the success of its many and varied training programs across 2019, the Partnership will continue to help improve human resources in the Indonesian cattle industry throughout 2020.

For more information on the Partnership’s Skills Development Programs, visit redmeatcattlepartnership.org



GRADUATES GET A GLIMPSE OF INDUSTRY LIFE

Nur Akhidatun Anisa graduated from the Animal Husbandry Faculty at Gadjah Mada University in November 2019.

Through the Partnership’s Internship Program, she was assigned to the PT Juang Jaya Abdi Alam feedlot in South Lampung through until February 2020.

Anisa says she had some interesting experiences working in the feedlot, including unloading more than 5,000 cows from a ship and herding the cattle from their sheds to the grazing pastures.

“At one time, while herding the cows, there was one cow that slipped and fell,” the 22-year-old explains. “Two other people and I tried so hard to get it back on its feet, and the cow ended up chasing us!” she laughs.

Another intern, Bintang Setia, a 22-year-old who graduated from Brawijaya University, takes a more aspirational view of the program.

Bintang says he hopes to be adept in the business processes of a cattle company, while developing managerial skills for the red meat industry.

“Hopefully, I can have enough knowledge to one day own my own beef cattle company,” he says.





▲ The 2019 NIAPP Participants

FROM CLASSROOM TO CATTLE STATION

In collaboration with the Northern Territory Cattlemen's Association (NTCA), the Partnership has successfully conducted the NTCA Indonesia-Australia Pastoral Program (NIAPP) for the eighth time.

In 2019, with support from the Indonesian Society for Animal Husbandry (ISPI), 20 animal husbandry students from 16 Indonesian universities received eight weeks of valuable training at Australian cattle stations across the Northern Territory.

Mr Ashley Manicaros, Chief Executive Officer of the NTCA, as quoted in beefcentral.com, says NIAPP operates to strengthen industry relations between Indonesia and Australia, with a particular emphasis on practices in the Northern Territory.

"The territory is the largest live exporting region in Australia, and Indonesia is the primary destination for its cattle," Mr Manicaros says.

"This program is targeted at the future beef industry leaders of Indonesia."

"So far, there are more than 100 NIAPP alumni who have been through our program and are now contributing to the development of the Indonesian industry."

Before their departure to Australia, the 20 most recent students participated in orientation training, facilitated by the Indonesian Society for Animal Husbandry and held at PT Pasir Tengah in Cianjur, West Java from 12 August to 16 August 2019.

The group arrived in Australia on 20 August 2019. They then went through two weeks of intensive training at the Heaslip Facility at the NTCA Bohning Yards in Alice Springs from 28 August to 13 September 2019.

After that, the participants were assigned to 10 different cattle stations across the Northern Territory, where they gained first-hand experience working as station hands.

PERSISTENCE WORKS FOR WAHYU

Wahyu Jaelani, a student at the Animal Husbandry Faculty of Hasanuddin University in South Sulawesi province, had been determined to enter NIAPP for more than a year.

The 21-year-old says the program was perfect for his studies because his university would count it as an internship, which would earn him course credits.

"One of my goals was to find work experience in another country," Wahyu explains. "So I asked a colleague who was already a NIAPP graduate about the program."

"I was curious and wanted to know how I could also get accepted. He told me what I needed to do to prepare."

Wahyu worked hard to fulfill the program's entry requirements—including writing an essay on how he wanted to contribute to the Indonesian cattle industry—and his hard work and determination eventually paid off.

Wahyu was selected as one of the 20 students for NIAPP 2019, and was subsequently placed for work experience at the Lakefield Station at Sturt Plateau, Northern Territory.

The Animal Husbandry student was impressed with the breeding technology at the station, and was surprised to discover that they did not rely on artificial insemination.

"They try to breed new calves using quality bulls and they have a management system to support the process from the beginning until the end."

Wahyu also learned about Lakefield's cattle recording system, and now believes that the Indonesian cattle industry needs to have a comprehensive recording system.

Once he graduates from Hasanuddin University, Wahyu wants to pursue a career in the red meat industry.

"I think the meat industry in Indonesia has a lot of potential, and we have a lot of land. I'm sure our farms can be as advanced as the ones they have in Australia," he says.

GINA WARMS TO TERRITORY LIFE

Another participant in NIAPP 2019, Gina Arya Mardiah, was assigned to Newcastle Waters Cattle Station, where she initially had difficulty adjusting to the hot, dry weather.

"It's hotter than in Indonesia," Gina says with a laugh.

However, the 20-year-old student from Padjadjaran University in West Java soon adapted to the working environment of the Northern Territory.

Gina says she learned a lot about the early weaning program conducted at the cattle station during a long period of drought.

She explains that early weaning is done so that the cows can recover their body condition more quickly, instead of giving valuable nutrition to the weaners during the dry weather.

"I realized this can be applied in several areas of Indonesia as well," she says.

Gina not only received valuable knowledge about cattle management while working at the station, she also had a lot of fun.

"I learned how to ride a horse," she adds. "That was really interesting."

Gina hopes that what she learned in Australia during the eight-week program can help her improve Indonesia's cattle industry in the future.

"I am grateful to be able to meet different people in the cattle industry, both in Indonesia and Australia, and to expand my network," she says.

"From these people, I understand more about Animal Husbandry in Indonesia, common problems that our traditional farmers face, and the solutions needed to tackle those problems."

For more information on NIAPP, visit ntca.org.au



▲ Wahyu Jaelani in front of a road train that is used to transport live cattle with capacity of 200 ton. Wahyu Jaelani learned cattle handling management and animal welfare in transporting live cattle.

MUHSIN PAYS IT FORWARD

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



▲ Muhsin Al Anas, Alumni of NTCA Indonesia-Australia Pastoral Program, 2013

Name : Muhsin Al Anas
Age : 28
Institution : Gadjah Mada University
Region : Yogyakarta, Indonesia
Course : NTCA Indonesia-Australia Pastoral Program
Program Graduate : 2013

Muhsin Al Anas was one of the first Indonesian students to join the Northern Territory Cattlemen's Association Indonesia-Australia Pastoral Program (NIAPP) back in 2013.

At the time, he was an undergraduate at the Animal Husbandry Faculty of Gadjah Mada University (UGM) in Yogyakarta, where he commenced his studies in 2011.

"After I heard about NIAPP, I got really motivated to join. I wanted to have the best skills in the cattle industry, especially in beef production. I was curious how Australia

can produce beef on such a large scale and I wanted to see it for myself," Muhsin says.

Through NIAPP, Muhsin spent six weeks performing field work at Heytesbury Cattle Company in Australia's Northern Territory.

He experienced first-hand how to take care of cattle and gained valuable insights from his involvement in the station's operations.

Participation in NIAPP prompted Muhsin to pursue a career devoted to improving the cattle industry in Indonesia.

As soon as he completed his undergraduate degree in 2015, he undertook his master's degree followed by a doctorate.

Then, in 2018, Muhsin took up a position as a lecturer at UGM's Faculty of Animal Husbandry, and is now passing on his knowledge to the next generation of young cattle breeders.

"I can't move on from UGM," the 28-year-old laughs. "But I am enjoying teaching others what I have learned so far."

"Not only what I learned in Australia, but also from other participants of NIAPP."

"Through the program, I have made friends from all over Indonesia and I can find out from them the way they do things in other regions."

In a twist of fate, Muhsin now assists in selecting the students from his university who will participate in NIAPP.

"I was one of the first students from UGM who took part in NIAPP," he points out.

"Now many more students have heard about the program."

"I hope a lot more students will receive the insights and experiences from Australia, and give back to Indonesia's cattle sector."

Aside from his daily activities as a lecturer, Muhsin continually seeks other ways to advance his country's cattle industry.

He is involved in various educational programs organized by the Partnership, and helped initiate an internship program whereby recent Indonesian Animal Husbandry graduates can gain work experience with large-scale cattle breeding operations (see the skills development article on page 16). Muhsin is currently the internship program's coordinator.

He is also the driving force behind Gama Sapi 4.0, a digital app that can be used to record Indonesian cattle productivity and compile the data for use by breeders.

"I had the idea when I was in Australia," Muhsin says.

"I saw that it was so easy to get data on the cows because of the way the Australians do their recording. Especially when a farm is run by a big company, whatever data there is, will be recorded."

Assisted by a team of his students, Muhsin adapted this concept to Indonesia's smallholder farmers, who account for 99% of the country's red meat and cattle sector.

Through the app, a farmer can input data about the productivity of



▲ Muhsin's goal is to change the mindset of Indonesian smallholder farmers to incorporate technology into their farms.

their cattle as well as information about themselves and their farming operation. Other users can then see this data for comparison and planning purposes.

"We can find out what exactly is happening in our cattle industry, what education the farmers might need, or the breeding or productivity levels of the cows in one area," Muhsin explains with enthusiasm.

"With that data, we can figure out what to do to improve the industry, when to breed the cows, and how to increase productivity."

While it is still in its trial version and available only for the Yogyakarta

area, Muhsin's app has already been downloaded by more than 100 users. He hopes to expand its usage further with the help of the Yogyakarta Animal Husbandry Office.

Muhsin's goal is to change the mindset of Indonesian smallholder farmers to incorporate technology into their farms.

For more information on the Partnership's Skills Development Programs, visit redmeatcattlepartnership.org



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