



GLOBALISATION AND CHALLENGES TO VETERINARY EDUCATION IN ASIA



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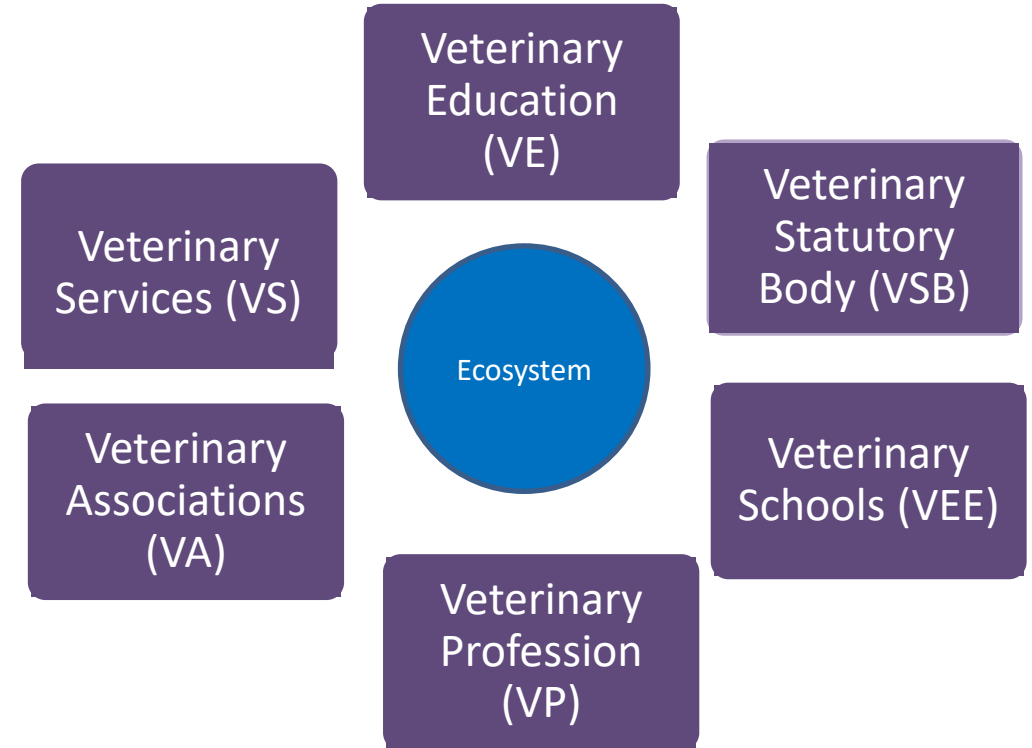
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Introduction

- ❑ **Globalisation** is a term generally used to describe an increasing **internationalisation of markets for goods and services**, the means of production, financial systems, competition, corporations, technology and industries
- ❑ High quality veterinary education (VE) and efficient VEE, VSBs, VP and VA will preserve the good governance and function of veterinary services (VE) towards global public good
- ❑ A standard must be established and adhered, and it requires specialization
- ❑ Re-engineering veterinary education itself to meet global demands



Introduction

- ❑ 51 countries (or dependent territory) in Asia
- ❑ 4.669 billion current population of Asia or is equivalent to **59.76%** of the total world population
- ❑ **158** Veterinary educational establishments (VEEs) in **32** (63%) member countries in Asia
- ❑ Size of VEEs based on student intake numbers varies: 50 or less (42.4%), 51-100 (34.8%), 101-150 (14.6%), 151-200 (3.8%), and more than 200 (4.4%)
- ❑ Duration of the study in VEEs varies from **4-6 years**
- ❑ Languages - people speaking nearly **2,300** living languages across Asia with Chinese, Hindi, English, Russian, Indonesian, Bengali, and Japanese are the most spoken languages on the continent
- ❑ **Socio-cultural differences** - language, culture, mindset, etc.
- ❑ **Differences** in resources, operations, and procedures – production (VEEs), quality assurance (VSBs), veterinary services, NQF, etc.
- ❑ **Varying strengths** of veterinary services in the region
- ❑ **Policy and governance differences** – political commitment, regulations (eg: regulations of veterinary drug)
- ❑ Variations in **distribution** - workforce, gender, practice type
- ❑ Lack of **adequate incentives** – recognition, opportunities, professional development, compensation
- ❑ Lack of **access to broader opportunities** - scientific publication, continuous education, development of expertise
- ❑ Variations in **trade policies**

Veterinary Profession

- ❑ The profession deals with **health and diseases** in vertebrates including human
- ❑ In a global world today, the veterinary profession in the region may not be able to meet the needs of society and protect the broad career areas
- ❑ With the human population in the regions continues to grow exponentially, and this growth will put increasing pressure to produce **sufficient food** in a sustainable way
- ❑ There is a societal expectation that a professional approach is being taken to managing **food security** and **food safety**, as well as the **environment** and **biodiversity**
- ❑ Every veterinarian must accept the challenge of becoming and remaining **competent**, making a **lifelong** commitment to education



Veterinary Profession

- ❑ If the profession does not provide the services that might reasonably be expected of it by society, it is certain that **new or existing professions** or disciplines will fill the void
- ❑ The profession must review critically that the present culture of the profession, modelled solely on the **human medical** profession as it is no longer functional
- ❑ The profession can retain the best of the human medical model, but must set it in an independent culture that can embrace all vertebrates in an economic and ethical context that is realistic
- ❑ It is a need to transform or reengineered (if necessary) the veterinary profession from the traditional clinical approach to one that **fully serves society**
- ❑ **Expertise** (specialized knowledge) is the most important characteristic of the professions
- ❑ Knowledge is now widely accessible and is becoming democratized
- ❑ **Technology** will change the way the public gets access to professional expertise
- ❑ Exponential increase in technologies like **computers, genetics, nanotechnology, robotics, and artificial intelligence**
- ❑ **Technological singularity**; a hypothetical point in time at which technological growth becomes uncontrollable and irreversible, resulting in unforeseeable changes to human civilization

Veterinary Education

- ❑ Veterinary education **curricula** and core curricula totalling no of credits hours vary from one VEE to another
- ❑ To ensure consistency and competencies veterinary graduates across countries in the region, curricula should be **standardised or harmonized** across a number of common subjects
- ❑ The variability in cultures, languages, art of communication, demand and requirement among member countries, background on the establishment of veterinary schools and financial constraints are among **issues and challenges** in harmonizing veterinary education in the region
- ❑ Veterinary education in the region needs to address and strengthen issues, and changes in new scenarios such as **one health**, trans-boundary diseases, leadership, entrepreneurship, information technology, halal, food safety and security as well as stakeholders' expectation such as day one competency, global recognition, programme accreditation, animal ethics and welfare

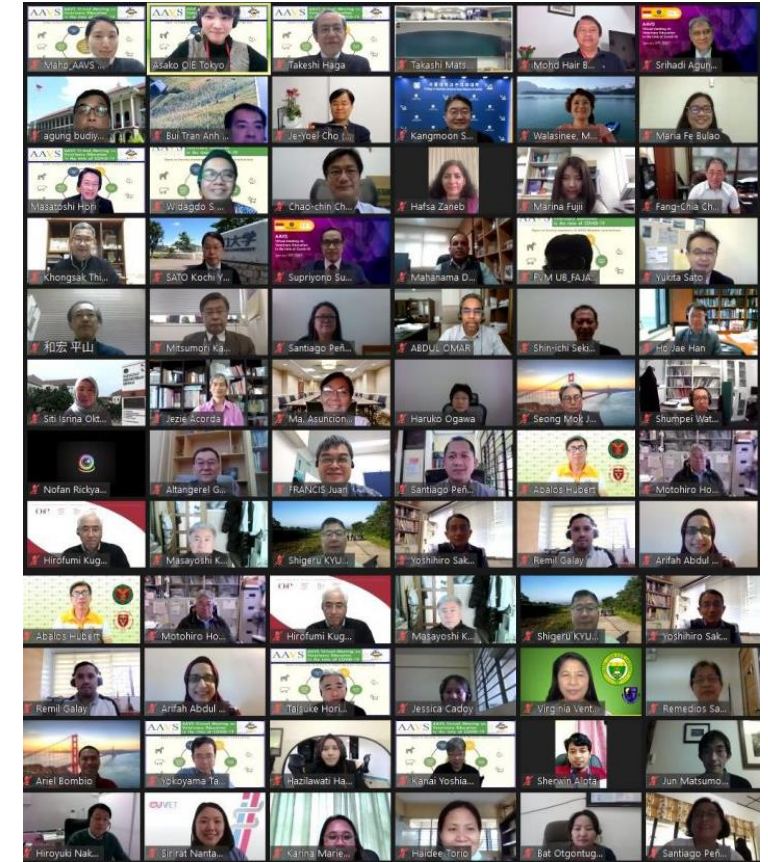
Veterinary Education

- ❑ Reengineering of veterinary education in the region may yet to consider critically in a near future by adopting an educational system that combines substantive **undergraduate tracking, compulsory internship** and designated licensure to address issues such **genders** and **shortage** of veterinarians in livestock industries: more female and companion animals practice
- ❑ However, the undergraduate tracking may has some advantages and disadvantages
- ❑ It is belief that undergraduate tracking is not able to retain considerable value in the breadth of the current veterinary degree, with its opportunities for comparative study across the species



Veterinary Education

- ❑ Veterinary learning does not end with graduation. In fact, learning has only **just begun**, and it necessarily continues throughout every veterinarian's professional career
- ❑ The need for continuing professional development after graduation and area of specialization such as **post graduate programme, internship, residency, specialist**, life-long learning and continuous professional development (CPD) are already widely recognized by the existing accrediting bodies
- ❑ Continued registration to practice veterinary medicine already depends on the achievement of prescribed levels of continuing development
- ❑ This requirement will need to be part of the mandate of the global standard



Veterinary Education

- ❑ The future of teaching and learning
 - Uniquely individual - abstract thought, active learning and higher order cognition
 - Personalized teaching – customized, instant feedback, self-paced and adaptive
- ❑ Competency-based training and assessment
 - Focus on **outcomes**, emphasize abilities shift from time-based training to **competency-based assessment**; shift from faculty-centered teaching to student-centered learning (**SCL**)
- ❑ Outcomes of the DVM programme
 - Must be measured, analyzed, and considered to improve the programme
 - Student achievement during the pre-clinical and clinical curriculum and after graduation must be included in outcome assessment
- ❑ Veterinary graduates
 - Must have the basic scientific knowledge, skills, and values to provide entry-level health care, independently, at the time of graduation
 - At a minimum, graduates must be competent in providing entry-level health care for a variety of animal species

Veterinary Schools

- ❑ It is urgently needs to develop a long-term strategy toward **global recognition** of the veterinary qualification
- ❑ There is a society expectation that veterinarians everywhere will all have graduated at the same standard and have the same **basic competencies** or at least meeting the **minimum standard and competencies**
- ❑ These competencies must enable the profession to deliver the wide range of expertise and services required today and in the foreseeable future
- ❑ Currently, the dilemma and one of the major challenges that the profession face, is the **significant disparity in the quality and recognition** of veterinary education in the region and around the world



Veterinary Schools

- ❑ **A lead** must be taken by the regional or a global body to develop a long-term strategy toward global recognition of the veterinary qualification
- ❑ Currently, some regional blocs of **accreditation** operate around the world, and they encompass a significant proportion of the veterinary profession
- ❑ The major accrediting bodies are based in North America, Europe, the United Kingdom and Australasia namely the American Veterinary Medical Association (**AVMA**), European Association of Establishment for Veterinary Education (**EAEVE**), Royal College of Veterinary Surgeon (**RCVS**) and Australian Veterinary Boards Council (**AVBC**), respectively
- ❑ Veterinary school accreditation could develop a **well-educated veterinary workforce**; to protect human and animal health, assure the quality of education and promote **continuous quality improvement**
- ❑ It will benefit the (1). **Society** – quality of veterinary services, (2). **Students** – investment in education, (3). **Profession** – competencies of graduates, and (4). **Schools** – ongoing process improvement
- ❑ A few **constrains** include administrative burden to faculty, high budget and collecting data and writing self-study report

Veterinary Schools

- ❑ The establishment of Asian Association of Veterinary School (**AAVS**) in 2000 and South East Asia Veterinary School (**SEAVSA**) in 2010 is partly aimed in **harmonizing of veterinary school education** in the regions by setting of **minimum requirement** for the veterinary school in the region towards establishment of **Regional Veterinary Accreditation Board**

- ❑ To date, AAVS has 52 regular members and 3 associate members

- | | |
|----------------------------------|--------------------------------------|
| 1. 2001 - Seoul, Korea | 10. 2010 - Sapporo, Japan |
| 2. 2002 - Tokyo, Japan | 11. 2012 - Bangkok, Thailand |
| 3. 2003 - Kuala Lumpur, Malaysia | 12. 2013 - Surabaya, Indonesia |
| 4. 2004 - Kuala Lumpur, Malaysia | 13. 2014 - Seoul, Korea |
| 5. 2005 - Bangkok, Thailand | 14. 2015 - Hua Hin-Chua Am, Thailand |
| 6. 2006 - Jakarta, Indonesia | 15. 2016 - Taipei, Chinese Taipei |
| 7. 2007 - Taipei, Chinese Taipei | 16. 2017 - Seoul, Korea* |
| 8. 2008 - Seoul, Korea* | 17. 2018 - Tokyo, Japan |
| 9. 2009 - Seoul, Korea* | 18. 2019 - Putrajaya, Malaysia |

* 2008 - Standardization of veterinary education system in Asia

* 2009 - Accreditation and standardization of veterinary education system

* 2017 - Instrument accreditation of veterinary schools

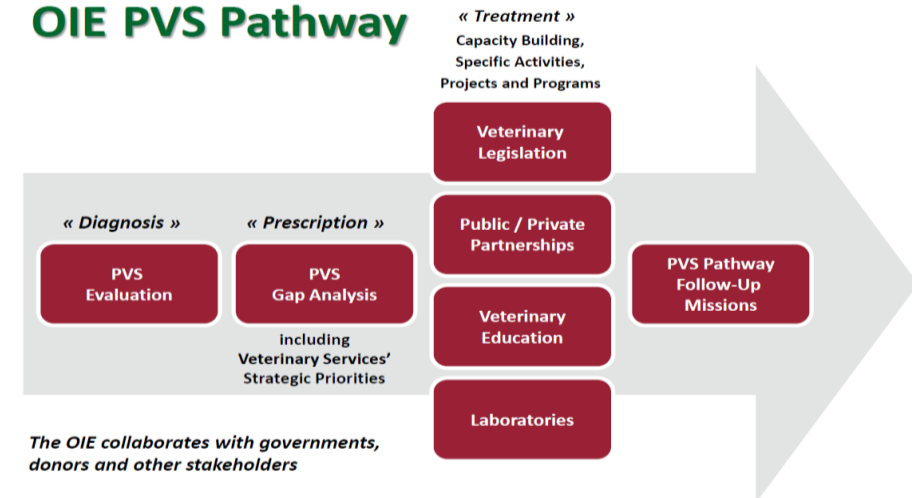
Veterinary Services

- ❑ Veterinary services is a global public good and in the front line in reducing poverty, food security, market access, animal welfare, protecting animal health, protecting public health, animal production and food safety
- ❑ The veterinary services in most of Asian countries is a balance of medicine and production based on the socio-economic status of the country

❑ OIE Performance of Veterinary Services (PVS) Pathway

- Good governance of animal health systems based on a close public/private partnership is the responsibility of all governments
- If one country fails, it may endanger its neighboring countries, the region, the continent and potentially the entire planet

OIE PVS Pathway



Veterinary Statuary Bodies

- ❑ The governance of veterinary education and profession in the region varies considerably from countries that have “no” form of regulatory of veterinary practice to those with **high-quality** veterinary statutory bodies (VSB)
- ❑ VSB categories
 - **Independent** VSBs set by law for the sole purpose of regulating veterinary profession
 - Regulated by **veterinary professional** association that “lack” a formal legal framework
 - Regulated directly by the **veterinary authority** or the government component of the veterinary services
- ❑ **Quality veterinary education** together with effective veterinary statutory bodies are cornerstones of good veterinary governance
- ❑ Ultimate **responsibility** is vested in the veterinary statutory bodies that accredit veterinary schools, set the standard examination for all new graduates, issue licenses, approve specialty boards and veterinary schools and set practice standards
- ❑ In addition, OIE has recommended that the role of veterinary statutory bodies to include in regulating the activities of **veterinary para-professionals** and ensuring these activities are ethical and of high quality

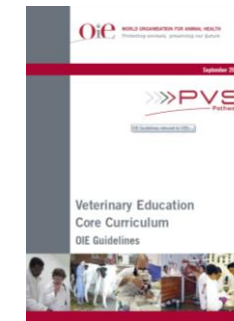
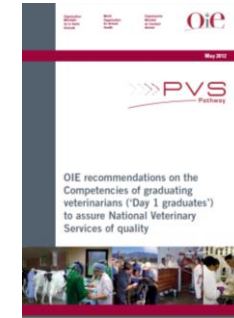
Veterinary Associations

- ❑ Global and national veterinary associations: WVA, CVA, FAVA, AAVS, SEAVSA and VAM etc.
- ❑ In the era of globalization, the veterinary association in the region need to **transform or reengineer** meeting the need of the society and rapid changes in veterinary profession, education and services in line with international standard
- ❑ The association should not progress like other non-professional associations, but as a professional association we should learn from other well established and successful associations globally to excel and provide significant services with high impact to veterinary profession and society



World Organization for Animal Health (OIE)

- ❑ OIE has shown great interest in harmonizing veterinary programme in the region and world
- ❑ 4 OIE global conferences on veterinary education were conducted: first in Paris France in **2009**, second in Lyon, France in **2011** and the third in Foz de Iguazu, Brazil in **2013** and fourth in Bangkok in **2016**
- ❑ In addition, many meetings were conducted in the region and sub-regional by the OIE regional offices such as in **2011** (Philippines), **2012** (Malaysia), **2013** (Indonesia), **2014** (Vietnam), **2015** (Thailand), **2017** (Korea and Thailand), **2018** (Japan)
- ❑ Guidelines – **Day 1 Competencies** (2012), **Model Core Curriculum** (2013), **Competencies for VPP** (2018)
- ❑ First **Twining Projects** (started in 2013)



OIE Twinning Projects

❑ OIE Funded

- University of Minnesota (USA) and Chiang Mai University (Thailand)
- Tufts University (USA) and Chittagong Veterinary and Animal Science University (Bangladesh)
- University of Queensland (Australia) and Nong Lam University (Vietnam)
- University of Tokyo (Japan) and Royal University of Agriculture (Cambodia)

❑ OIE Endorsed (without OIE funding support)

- Massey University (New Zealand) and University of Peradeniya (Sri Lanka)
- Hokkaido University (Japan) and Mongolian University of Life Sciences (Mongolia)

❑ OIE - Australian Veterinary Boards Council (AVBC) - Veterinary Council Thailand (VCT) Twinning Project



Covid-19 Pandemic

- ❑ The year 2020 (till now) has been a very challenging year to everyone though the turbulence caused by the Covid-19 pandemic
- ❑ National lockdowns, social distancing, wearing facemasks, and travel restrictions have become the new normal, constituting profound interference on individual freedoms, social stability, and economic safety
- ❑ Despite grave challenges, we were able to steer teaching and learning activities into adopting to the **new normal** and able to **use technology** to our advantage, in bringing value to our veterinary education
- ❑ On-line lectures, practical classes, clinical rotations and conferences such as a Webinar are common to all of us now.
- ❑ It benefited us especially on the opportunities for the students to attend lecture delivered by many **experts globally**, while they were only stay at home
- ❑ Unfortunately, many hand-on practical classes, out campus , farm and clinical trainings yet to be **postponed**
- ❑ Innovative approaches for veterinary education (New Normal)
 - e-Teaching and Learning (eTL)
 - Supporting Blended Learning (Online-Offline Learning)
 - Moodle-based System
 - Online Learning focusing on Lecture Videos
 - Drive links for recorded / sourced video demonstrations of practical sessions
 - Google Meet and Zoom for synchronous sessions for practical / case discussions
- ❑ Covid-19 pandemic has causes some students with money, study, extracurricular, physical and mental problems

Conclusions

- ✓ The veterinary schools, veterinary services, veterinary statutory bodies and veterinary associations in collaboration with and supported by national, regional and global organizations such as OIE play a vital role for quality veterinary education to ensure the success of the veterinarians to provide holistic solutions to changing global challenges
- ✓ The region is prepared for challenges of globalization to veterinary education, although there is a big horizon to explore and may take more time before it can be successfully achieved and becomes a full reality
- ✓ Opportunities for veterinarians to provide holistic solutions to changing global challenges
- ✓ Covid-19 pandemic has exponentially increased the use of technologies and innovative teaching approaches, a new normal and perhaps will be the future of teaching and learning practices
- ✓ Covid-19 is one of the worst pandemics, but it is not the first and foreseeably not the last. It is indeed one of the most critical and high-risk challenges to veterinary education and its ecosystem globally which need special attention, strategies and quick actions for a short and long-term solutions



Thank You