



BỘ NÔNG NGHIỆP VÀ PTNT



PRIORITIZED ISSUES IN RESEARCH FOR INCOME IMPROVEMENT OF SMALL LIVESTOCK PRODUCERS IN VIETNAM

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Outline

- ❖ **General information & Structure of farm households' income.**
- ❖ **Some difficulties in research for livestock production**
- ❖ **Advantages.**
- ❖ **Several issues of livestock production have been studied and need to be studied with high priority:**
 - * Animal breeds (Pig, ruminant, poultry).
 - * Animal feeds.
 - * Livestock category.
 - * Other.



General information



- ❖ Population : 87 million
- ❖ 54 different ethnic groups
- ❖ Land : about 33.300 km²
- ❖ Smallholder systems

dominate Vietnam's livestock industry.

- ❖ Farm household raising category is main source of meat, egg and milk for entire society (for instance 80 - 85% of pigs come from smallholder farms).
- ❖ Many of smallholder farms are operated by poor households.



Structure of farm households' income

- ❖ 13.78 million farm households.
- ❖ Number of rural labour forces in the country is about 33.24 million people.
- ❖ Total number of farm households to do agro-forestry-fishery works is about 10.46 million
- ❖ Proportion of agro-forestry-fishery GDP is accounted for 20,91 % of total GDP (2010).
- ❖ Of which: Income from livestock and cultivation is accounted for 75.3%;
- ❖ Income from fishery is 19. 3%;
- ❖ Income from forestry is 5.4%



Some difficulties in research for livestock production

- ❖ Availability of suitable and high quality breeds to small scale farms is still limited.
- ❖ Animal feeds accounted for about 70% in production cost.
- ❖ Small scale category farms are often use agricultural by-products, forage with concentrated supplement. It's often difficult for small production category to produce high quality but competitively pricing products because of low nutritious contents in used by-products.
- ❖ Allocated funds for scientific research have been increased but still insufficient, especially in researches as breeding system establishment; socio-economics relating to systematic development in economics.



Advantages

- ❖ Livestock production is prioritized to develop with proportion of 42% GDP will have been gained by 2020.
- ❖ Quality has been improved in many programs as animal and plant breeding; MARD's animal breeding projects, and GGP and GP farms through out the country.
- ❖ There are 233 feed millers supplying 10.60 million tons of feeds equivalent to 54 % of 19.5 million tones of industrial feeds.
- ❖ There is much concern from the Government on veterinary and vaccinating activities so that livestock have been protected better and safer.



Advantages (cont)

- ❖ Some policies relating to bank credit, land using right, farming and tax have been concerned by the Government, as well.
- ❖ Investment has been paid to scientific research to improve livestock husbandry technology.
- ❖ Collaboration of agricultural extension and technical transferring to locality have been appropriately accepted by farmers.
- ❖ People's income increased.



Several issues of livestock production have been studied and need to be studied with high priority

- A. Animal breeds
- B. Animal feeds
- C. Livestock category
- D. Other



A. Animal breeds

1. Regarding to pig production (occupied 75,1% in total livestock production)

Some results from basic study need to be transferred to farm households

Researches have been carried out to increase lean meat ratio from 33.6% in local breeds up to 44-46% in hybrid pigs, in the north and these numbers are 48-50% in the south. Based on farmers' requests, there are many researches on hybrid formula with 3/4 and 7/8 exotic genetics in order of producing a lean meat ratio at 52-56% in offspring

Crossed bred pigs between two exotic breeds as Landrace x Yorkshire produced a lean meat ratio at 56-58% in basic study; the ratio is increased at 58-61% in formula of 3 exotic breeds as Landrace, Yorkshire and Duroc or Pietrain



Issues need to be continually studied and transferred to smallholders

- ❖ Researching on breeds, lines of pig having high productivity and quality in capable to local demands; using local genetics and imported breeds.
- ❖ Researching on lean meat ratio 46-48% in local pig and more than 58% in exotic; feeds conversion ratio below 2.8kg in realistic production.
- ❖ Currently there are 195 GGP and GP farms through out the country with a total number of 73,562 nucleus pigs, and a number of 549 artificial insemination stations with 4,562 boars.



Issues need to be continually studied (cont)

- Setting up pyramid breeding and breeding management systems with supports from informative database in order to supply good quality breeds to livestock producers.
- Supporting to technical improvement to farm households, small and medium scale farms about industrial livestock production methods.
- More focus on artificial insemination in pig production
- Production areas: in all 7 ecological regions through out the country, of which potential ones are Southern East, Red River Delta and Mekong River Delta.



2. Regarding to poultry production (occupied:15,5%)

- ❖ **Some results from basic study need to be transferred to farm households:**
- Local chicken (Vietnamese breed) are produced about 155 million heads every year with average body weight at 1,3 kg and have been preferred by customers due to delicious meat. Market price is at VND 50,000 per kg.
- Gardening colour chicken have been studied and selected, adapted and purely bred which produces 8 breeds with many cross bred formulas. Body weight is about 1.8 – 2.4 kg at 60 -80 days of age that depends on breeds and cross bred formula (e.g. ISA-JA57 at 70 days of age weighted 2.3kg/chick; Feeds Conversion Ratio (FCR) is about 2.48kg; Kabir breed at 70 days of age weighted 2.0kg; FCR is about 2.50kg).



Some results from basic study need to be transferred to farm households (cont)

- Colour, garden chicken are accepted by consumers:
- Productivity is about 120 million chicken per year.
- Farming category is establishing with average capacity of 800 - 1500 chicken/litter, of which there are some farms with capacity of 2,000-30,000 chicken/litter.
- HCMC and Hanoi adjacent areas have husbandry at higher capacity than other ones.
- White breed is also producing about 95 million chicken per year, body weight at 42-45 days of age is about 2.3 – 2.5 kg/chick, FCR is about 1.9 – 2 kg. Market price is at VND 35-38,000 per kg.



Meat – type duck breeds

- Number of local duck being slaughtered every year is about 85 million heads at average body weight of 1.3 – 1.5 kg/con. Market price is at VND 40,000 per kg.
- Number of exotic duck raising in semi-intensive condition being slaughtered every year is about 30 million heads at average body weight of 3.2 kg at 56 days of age, FCR is 2.92kg; Market price is at VND 45,000 per kg.
- Cross bred between V5 male line x V6 female line of CV Super M breed raising in farm household condition produces 194-197 eggs/female/40 laying weeks.

Above lines of duck breed are necessary to transfer to realistic household production.

- In southern east area there is an average capacity of 800-1,200 heads/litter/household; while the number in the southern west is 1,000-3,000 heads/litter/household.



Muscovy ducks breeds

- Lines R31 and R51 have been studied and prevalently raised at farm households.
- At 84 days of age, a male weighted at 4.4kg; a female weighted at 2.3kg,
- Male's and female's FCR is about 3.16 and 2.56kg, respectively.
- Total number of produced meat – type muscovy duck is about 15 million heads/year. From 1996 to present muscovy ducks' quantity has been double increased while body weight has been increased one and a half times.
- Above results need to be applied in realistic production at farm households.



Poultry Research orientation in the future

- ❖ Setting up pyramid breeding farms and management system with supports from informative database in order to supply enough good quality breeds to livestock producers.
- ❖ Local ducks must be raised under bio-secure conditions.
- ❖ Improvement of livestock production traditional technology (i.e. feeds and animal health), with more technical supports to medium and large scale farm households.



3.Regarding to ruminant animals (occupied:9,0%)

➤ *Meat cows:*

- ❖ In total number of 6.91 million meat cows in Vietnam there are 38% of them those have been Sindhy cross bred (yellow cow x Red Sindhy).
- ❖ Other breeds as Red Brahman and Grey Brahman are being accepted by farm households in Central and Highland regions.
- ❖ Breeds between Red Sindhy hybrids were cross bred with others as Charolais, Limousine, Hereford, Simental and Drought Master those have been studying and applying in some regions.



4. Dairy cows

- Vietnam has about 140,000 dairy cattles of which 25,000 are pure, all the rest of it is crossbred between HF and local breeds (F1 cows: 50%HF and 50% local breeds),F2 cows (25% local breeds and 75%HF) and F3 and F4 (less than 12.5% local breeds and 87.5% HF).
- Crossbred can produce 4000-4100 kg, and pure HF can produce HF 5200-5500 kg of milk per lactation



Ruminant animals' Issues need to be studied upon 2020

- Continuous studying is needed so that above results of meat cow, dairy cow, buffalo and goat raising could be transferred to realistic production.
- It should have a study's result of meat cow body weight more than 300kg at less than 24 months of age.
- Hybrids as F2 3/4 (25% Sindhy hybrid and 75% HF breed) have milking production more than 4,500kg to 4,800kg of milk per lactating period. Pure HF breed will produce 5,800 – 6,500kg of milk per lactating period in suitable ecological areas.



Ruminant animals' Issues need to be studied upon 2020 (cont)

- Improvement of capable meat and dairy cow production methods at farm households, more technical supports to medium industrial scale farms. To be going on to hybrids with Zebu breed in order to satisfy meat demands beside importation of meat and milk cow breeds for genetic improvement.
- Cattle fattening technology will be more focused and transferred to farmers in order to increase meat quality and economic effectiveness in cattle production.
- Studying more about AI, ET in order of producing bulls with high productivity and testing in next generation.

5. Buffalo herd

- ❖ There is 2.91 millions heads, 100% is local buffaloes. This kind of husbandry is like saving in which the poor get income from, especially in northern midland regions. Thus, it needs to select and ear tag male buffaloes and cull small ones accompanying
- ❖ Other measures such as feeding, veterinary and managing in order to increase buffalo raising effectiveness.



B. Animal feeds

- Animal feeds accounted for about 70% of livestock production cost, so investment in new technology for manufacturing feeds should be more focused on.
- Diversity sources of feeds ingredients should be studied so that local sources should be used effectively accompanying with compound and concentrated feeds and additives.
- Building feeds formulas basing on modern methods aiming to evaluation on feeds nutritious values, technology, energy balance, amino acids, vitamins, macro and micro minerals.
- FRC should be reduced lower than 2.6 regarding to pig production; this figures are 1.9 and 2.3 kg regarding to white breeds and colour gardening chicken, respectively.

C. Category of livestock production

- Farm household raising category is main source of meat, egg and milk for entire society.
- Since 3/2000 farming policy has been launched accompanying several supportive policies in order to shift economic structures of households animal and cultivate production, medium farming scale was developed and more professional. Farm size from 200 – 500 pigs per household, 2000-15,000 chicken per litter and 10-30 dairy cows has been establishing in many regions.



Issues need to be studied more will be:

- Small, medium and intensive husbandry categories are articulated. It's necessary to study consistency and uniform coordination of breeds quality, feeds, veterinary services, production techniques, outputs and marketing in each region in order to have more effective livestock production.
- More study to help small scale households gradually become medium and large scale ones.



D.other issues

- It needs to study more labor supply and demands rule, pricing and marketing in order to have more sustainable household scale livestock production.
- Difficulties in realistic production should be studied too.
- More focusing on disease free zones .
- Slaughtering and processing, transportation of livestock should be taken into account so that food safety and effects of production should be increased.
- Waste management technology should be studied for decreasing environmental pollutions caused by husbandry effluents and culled animals.



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Sources

- National strategy for development livestock production
- Strategy for research on animal husbandry
- MARD and National statistical year book -2010



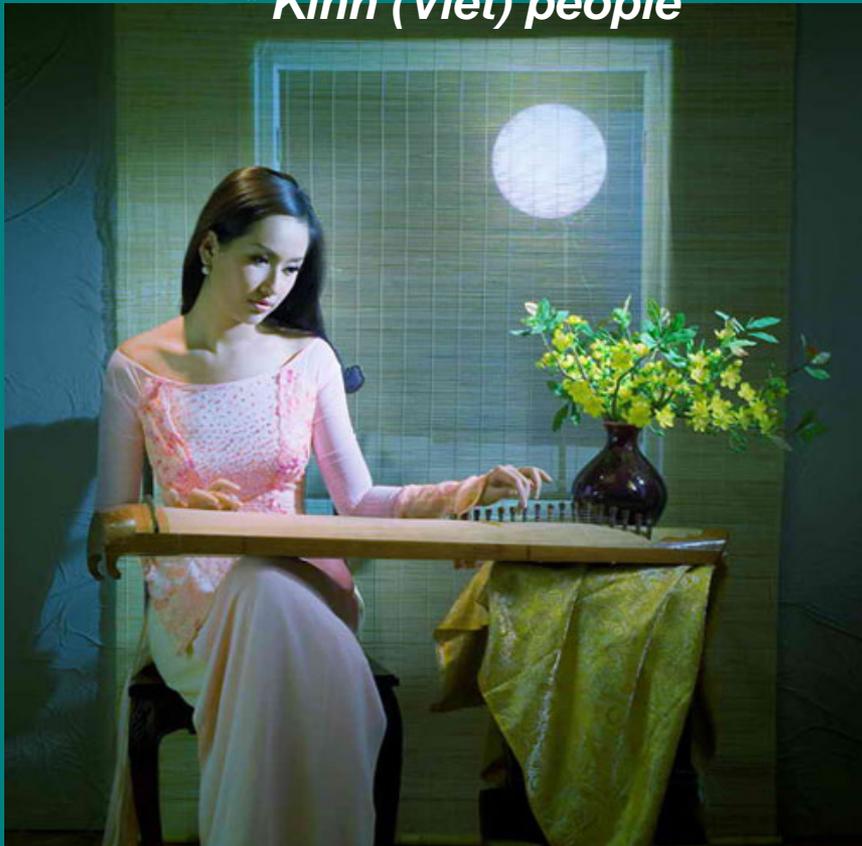
Acknowledgements

- Livestock production Department-MARD
- National Institute of Animal Science-NIAS
- Vietnam Animal Husband Association



Images of some Vietnam ethnic groups

** Kinh (Viet) people*





** Thai Ethnic Group*



** H'Mong Ethnic Group*





**Muong Ethnic Group*



**Ha Nhi Ethnic Group*





**Kho Mu Ethnic Group*



**Dao Ethnic Group*



Agriculture System in Son La

Livestock production system



Feeding and Market



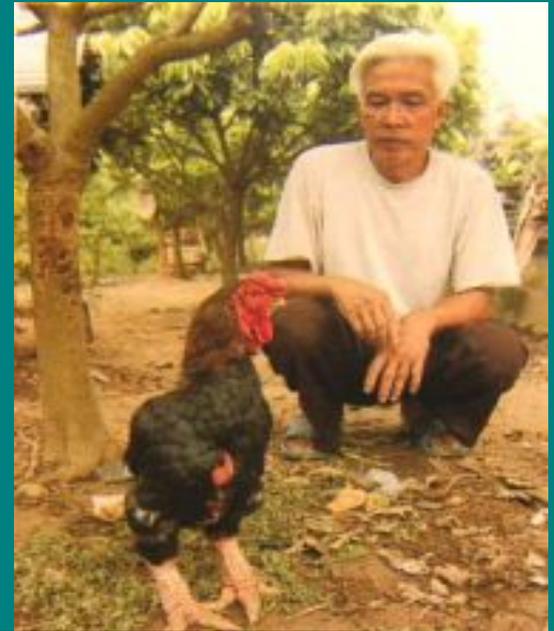
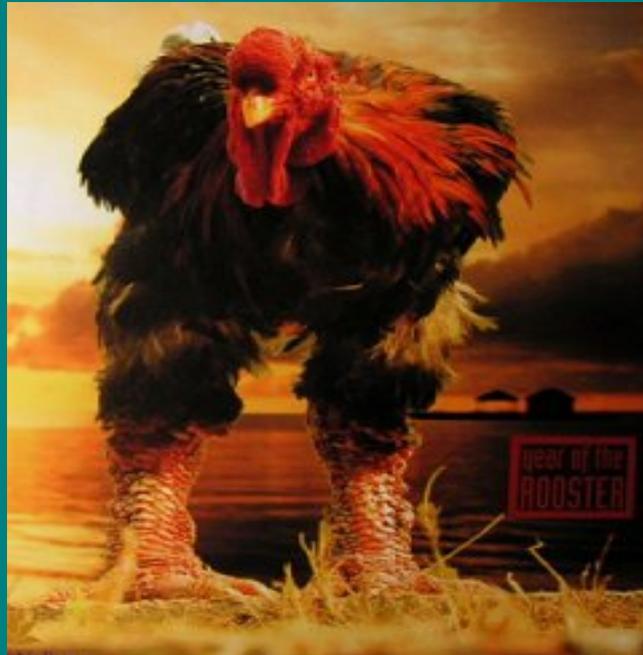
Grazing



Raised in Stables

Traditional culture

Ho Chicken breed



Ho chickens in tradition customs and painting



Ho chicken Annual Ceremony to the Emperor and Village God



Periodical Ho
Chicken
Competition
Festival





THANK YOU!

