



Proceedings of the Workshop on Conservation of Indigenous Poultry Breeds in Bhutan



10th August 2011
Hotel Migmar, Olakha, Thimphu, Bhutan

Convened by:
Department of Livestock and National Bio-diversity Centre
Ministry of Agriculture and Forests
Royal Government of Bhutan

South Asia Pro Poor Livestock Policy Programme (SA PPLPP)

SOUTH ASIA
Pro Poor Livestock Policy Programme
A joint initiative of NDDB and FAO



*Photo Credits:
Aranya Sawhney Malik
National Bio-diversity Centre
Professor A.K. Fazlul Haque Bhuiyan
SA PPLPP Country and Coordination Teams*



The Department of Livestock Services, Ministry of Agriculture and Forests, Royal Government of Bhutan, in collaboration with the National Bio-diversity Centre and the South Asia Pro Poor Livestock Policy Programme (SA PPLPP), convened a workshop on the conservation of indigenous poultry breeds of Bhutan on 10th August 2011 at Thimphu, Bhutan. The workshop assumes significance in light of recent interventions to increase poultry productivity in the country through the introduction of exotic and cross-bred chickens, and support for commercial poultry rearing.

Participants at the workshop included representatives of the Renewable Research and Development Centre, National Bio-diversity Centre, College of Natural Resources, District¹ Livestock Officers, and representatives of the SA PPLPP country teams from India and Bangladesh.

Dr. Tashi Dorji, Chief, Dairy Development Division, Department of Livestock (DoL), Ministry of Agriculture and Forests (MoAF), Royal Government of Bhutan, commenced workshop deliberations by welcoming delegates from India and Bangladesh, and participants from Bhutan. He highlighted the instrumental role of the Chief Guest, Dr. Tashi Samdup, Director, Council for RNR Research (CoRRB), MoAF, in conceptualizing SA PPLPP's work in Bhutan as the first Country Team Coordinator. He thanked country team coordinators from India and Bangladesh and the SA PPLPP Regional Coordination Team for their participation in the workshop. Dr. Tashi Dorji emphasized the importance of the workshop in generating valuable inputs for the sustainable use of indigenous poultry genetic resources in Bhutan at a time when the poultry sector in Bhutan is going through an accelerated development phase which could have a negative impact on indigenous poultry genetic resources of the country.

The key-note address was delivered by Dr. Tashi Samdup², Director of the Council for RNR Research. In his address to participants he highlighted the significance and timeliness of the workshop. This was the first time that indigenous poultry and its conservation was being discussed, while at the same time the workshop provided an opportunity to incorporate recommendations into the livestock policy currently being finalized. Dr. Samdup mentioned that Bhutan would perhaps be the only country where the poultry population was less than the cattle population, and while over 66% of



rural households rear poultry, the average flock size is only four birds per household. As per the RNR Census, there has been a decrease in poultry numbers from 2000 to 2008.

While commending workshop organizers for highlighting the 'development of a policy framework and action plan to conserve and increase indigenous poultry' as a key expected output of the workshop, he spoke of the challenges that indigenous poultry faced. Towards developing a policy framework and action plan, he requested participants to address issues such as why conservation of indigenous breeds was important, what has been done to conserve indigenous breeds, and how do we now go forward.

Highlighting the importance of conserving indigenous poultry breeds, he drew attention to the report on the State of the World's Animal Genetic Resources for Food and Agriculture (2011) which

¹ District is termed as Dzongkhag in Bhutan and is used interchangeably in the document.

² Dr. Tashi Samdup was the first Country Team Coordinator (Bhutan), for SA PPLPP.

mentioned that over the last seven years, one breed of domestic animal or birds was becoming extinct every month. A major reason for the loss of farm bio-diversity was poverty, and the need to move towards more productive exotic and cross-bred livestock. While exotic and cross-bred animals do provide immediate monetary gains, long term effects of reduced resilience and resistance to diseases are often over-looked, making these breeds more expensive in the long run. The establishment of the National Bio-diversity Centre has focused attention on the need to conserve indigenous breeds and Bhutan's bio-diversity wealth. A number of initiatives have since been taken up including the cryopreservation of semen of six different poultry lines, a documentation of indigenous animal breeds (Animal Genetic Resources of Bhutan, 2008) and a performance study of the Native Black poultry breed (Yubjha Naap).

He further mentioned that in Bhutan where socio-economic development was a priority, conservation would not be easy. There was need however to inform stake-holders of the many dimensions of conservation, and its importance for both development as also for the preservation of the environment and cultural heritage. He stressed on a holistic approach to conservation, highlighting the high adaptability of indigenous poultry to local environments. Where relevant and necessary, pure exotic and cross-bred chickens should be introduced. He further mentioned that in Bhutan a question that often arises is why certain areas are declared as conservation zones for livestock, while other areas benefit from increased incomes and higher production by exotic and cross-bred livestock. In his view, there could be no clear answer, but there is need to make trade-offs based on potential agro-ecological zones, opportunities in terms of socio-economic benefits and cultural values, while at the same time keeping in mind the needs of future generations.

In detailing his expectations from the workshop, Dr. Samdup hoped that workshop deliberations would review and take stock of achievements in the areas of poultry conservation and development, and challenges and opportunities that exist by way of social, cultural and technical aspects while attempting to draft a policy framework. He requested that efforts be made to facilitate the engagement of local stakeholders, particularly farmers and rural communities while developing such policy frameworks. He also stressed on the need to learn from the experience of India and Bangladesh related to indigenous poultry breed conservation.

SESSION I - PRESENTATIONS ON INDIGENOUS POULTRY IN BHUTAN

Native Chicken Diversity in Bhutan - Dr. N. B. Tamang, Research and Development Centre, Bumthang, Bhutan

Dr. NB Tamang from the RNR Research and Development Centre (RNR-RDC) in Bumthang presented the poultry diversity of Bhutan. There are six lines of native chicken in Bhutan that comprise (i) the Naked Neck (with no follicles or feathers on the neck and head); (ii) Hairy Comb (with feather patches behind the comb); (iii) Barred chicken (different patterns of barred plumage); (iv) Frizzle (with spike shaped feathers); (v) *Yubja Kaap* (white native chicken) and (vi) *Yubja Naap* (black native chicken). Similar to other native poultry breeds, the six indigenous poultry lines of Bhutan have also originated from the Red Jungle Fowl (*Gallus Gallus*). In collaboration with NBC, the RNR-RDC has procured chickens of four of the six native breeds and is raising them on a research farm to assess production performance to identify suitable strains to be promoted under a low input production system. A related objective is the creation of replacement stock to conserve native chicken strains particularly the *Yubja Naap* (Native Black).



As per data available, egg production from native chicken averages 57 eggs/ year and can go up to 85 eggs with improved housing and supplementary feeding. Native breeds have two to four egg clutches, averaging 5-10 chicks per hatch. In Bhutan, the rearing of local/ native breeds contributes significantly to family nutrition.

Dr. Tamang highlighted the urgent need to strengthen research to further assess the performance of different native poultry breeds, and based on such an assessment, select the most suitable for a low-input production system. Another priority need was to build the knowledge base on utilizing local feed resources. Among the six native breeds, efforts need to be focused in particular on conserving the Native Black breed (*Yubja Naap*).

Efforts and Initiatives to Conserve and Promote Indigenous Poultry – Mr. Sonam Tamang, National Bio-diversity Centre, Thimphu, Bhutan



NBC's presentation by Mr. Sonam Tamang, of the Animal Genetic Resource Conservation Programme, highlighted the efforts undertaken to conserve and promote indigenous poultry. As per data with NBC, there are 10 indigenous lines of chicken in Bhutan. Of these, the Frizzle (Polum), Naked Neck, Belochem, Baylaitey and Native Black (*Yubja Naap*) are very rare. A comparison between the poultry census of 2005 and 2009 shows a reduction in the

numbers of indigenous breeds in the total poultry population from 83.4 % to 64%. While there is apparently a high level of in-breeding, there have been no studies on the loss of genetic variety. National policies largely focus on intensive commercial poultry systems, ignoring the low-input indigenous and local poultry production systems.

In Bhutan, poultry is raised under three types of production/ rearing systems – (i) intensive commercial, where the birds are raised within a shed and fed balanced commercial feed. Chicken, eggs and manure are produced and marketed in nearby towns. This production system is largely found in peri-urban areas; (ii) back-yard production system where improved layers are reared under a confined system with space for the birds to move freely during the day. Local grains such as maize and rice are given. Sheds are made from bamboo and timber available locally; (iii) free range with provision for night shelter. This is the predominant poultry production system in the country. The birds scavenge during the day and are provided local grains as supplementary feed. Exotic and improved breeds were introduced under this system, but survival rates have been extremely low.

NBC has focused on both in-situ and ex-situ conservation. In-situ conservation focuses on the provision of small flocks of indigenous poultry breeds (5-25 birds) to farmers, as also facilitating the establishment of 'multiplier' farms where 50-150 birds are reared. A total of 8 such farms have been established. Over 1000 birds have been distributed and 130 farmers trained at the district level. Ex-situ conservation initiatives include the setting up of nucleus herds and cryopreservation of semen of indigenous poultry breeds.

During the period 2005 to 2009, while there has been an 18% increase in the numbers of native chicken, the numbers of improved chicken have increased by 235%. With the objective of motivating farmers to rear indigenous poultry breeds, niche markets for indigenous poultry need to be developed.

There is lack of a clear policy on breed improvement and conservation, and most government programmes and subsidies are targeted to promoting large-scale commercial production.

In detailing the way forward, Mr. Tamang recommended support for the development of niche markets for indigenous poultry, developing appropriate strategies for large-scale in-situ conservation of indigenous breeds in their native tracts and monitoring performance of different lines of indigenous poultry.

Production Performance and Suitability of Indigenous Poultry Breeds as Compared to Cross-Bred and Exotic Breeds – Dr. Phub Dorji, College of Natural Resources, Lobesa

Dr. Phub Dorji from the College of Natural Resources, Royal University of Bhutan presented emerging results from a study focusing on the production performance of two native breeds – Naked Neck and Native Black (*Yubja Naap*). The data has been collected through discussions with farmers and therefore the results are subjective, but do highlight the potential of rearing indigenous poultry breeds as an income earning activity. There is need for systematic research on the production performance of indigenous breeds, and based on results, a conservation and development strategy could be developed.



Constraints and Challenges Faced in the Rearing and Marketing of Indigenous Poultry – Mr. Dorji Dukpa, District Livestock Officer, Tsirang Dzongkhag



Mr. Dorji Dukpa, District Livestock Officer from the Tsirang Dzongkhag presented the results of interventions promoting indigenous poultry breed rearing as an economic activity. The Tsirang Dzongkhag has been recognized as a livestock focused district by the Ministry of Agriculture and Forests. There are currently 150 (semi and commercial) layer farms and 27 broiler farms in the district. Over 20,000 eggs and 3,500 kg of chicken meat are sold each month. Two blocks (Mendrelgang and Shemjong) were selected for indigenous poultry breed rearing. A total

of 33 improved poultry coops were established in 2008-09 and poultry birds and other equipment (feeders and waterers) were provided free to farmers. Since there was no financial outlay the following year (2009-10), the project was unable to provide further support, but farmers were encouraged to replace poultry stock and maintain the coops. In 2010-11 three pure line multiplier farms have been established and training and inputs have been provided. As compared to exotic and cross-bred poultry, indigenous poultry are more disease resistant and do not require constant medication and vaccination. Indigenous breeds have immense cultural significance and both eggs and meat command higher prices in the market. The management and up-keep of indigenous poultry is easier as compared to exotic or cross-bred poultry.

Major constraints faced in the promotion of indigenous poultry include difficulties in replacing and replenishing stock, lack of a designated nucleus farm to purchase quality stock, and the absence of

data on production performance which makes it difficult to advise farmers on the choice of breeds. The Tsirang Dzongkhag has a flourishing commercial poultry industry, making it difficult to convince farmers to take up indigenous poultry rearing.

SESSION II - EXPERIENCE SHARING AND PLENARY DISCUSSION ON THE PROPOSED INDIGENOUS BREED CONSERVATION AND REARING PROGRAMME

The presentations from Bhutan were followed by two experience sharing presentations from Bangladesh and India focusing on initiatives in these countries on indigenous poultry breed promotion. Both presentations highlighted the potential economic benefits that indigenous poultry rearing can bring, provided institutional arrangements are established to facilitate required inputs and market access.

SESSION III - WAY FORWARD

The final session of the workshop was chaired by Dr. Tashi Yangzom Dorji, Programme Director, NBC and Dr. Lham Tshering, SA PPLPP Country Team Coordinator, and focused on the way forward towards developing a policy framework for indigenous poultry breed conservation. While requesting participants to share their views on the next steps, Dr. Yangzom drew attention to the issues raised in the key-note address and the need for discussions on the way forward to clearly highlight **why** indigenous breed conservation is essential, **where** should priority be accorded for these interventions, **who** will be responsible, and **how and what** will be done.

Participants highlighted the need for stronger data, both related to the number of indigenous breed lines as also production performance of different breeds. This would help in identifying the most viable indigenous breed for specific areas. Mention was also made of the need to focus research on local sources of feed to avoid and limit dependence on expensive purchased feed, which was leading to extremely high input costs for poultry rearing. The SA PPLPP Regional Coordination Team shared information on good practices implemented in the Bastar Integrated Livestock Development Programme in the Eastern Indian state of Chattisgarh to provide protein rich food for household poultry flocks, as also the documentation and dissemination of ethno-veterinary practices to build immunity of poultry flocks, reduce worm infestation and disease control.



In Bhutan, the mountainous terrain and scattered habitations, with poultry production currently limited to subsistence levels is a major challenge in facilitating institutional systems for market access. Linked with this is the high perishability of poultry products.

In view of the relatively higher numbers of the Bobthra poultry breed, the possibility of in-situ conservation and up-scaling the rearing of this breed was raised. For other breeds, currently found in limited numbers, the priority should be on ex-situ conservation and the development of nucleus herds. In designated conservation areas, the need to subsidise farmers conserving breeds for the 'larger public good' was raised.

The constitution of a Technical Working Group comprising of relevant stakeholders, and led by NBC was a major workshop recommendation. The group would review the draft Livestock Policy, as also other policy documents and relevant acts (Forest and Nature Conservation Act, Livestock Act, National Bio-diversity Action Plan) and develop a policy framework and action plan for indigenous

poultry breed conservation, to be presented for review and discussion at a possible second workshop in December to be supported by SA PPLPP.

The workshop resolved to constitute a Technical Working Group (TWG) comprising of relevant stakeholders (Department of Livestock, Department of Agriculture Marketing and Cooperatives, Department of Forests and Park Services, other government agencies, NGOs and the SA PPLPP Regional Coordination Team), led and coordinated by the National Bio-diversity Centre. The TWG shall review the draft “Livestock Policy for Bhutan,” and ensure adequate provision for the conservation of indigenous livestock breeds. The TWG shall complete the review and develop a policy framework for discussion and finalization at a possible workshop in December 2011 to be supported by SA PPLPP.

The workshop also resolved that an action plan for conservation of native breeds shall be formulated in line with the reviewed livestock policy, National Biodiversity Action Plan and existing acts, rules, and regulations.

Dr. Lham Tshering, SA PPLPP Country Team Coordinator, Bhutan, delivered the Vote of Thanks and formally concluded the workshop.

Abbreviations

CNR	College of Natural Resources
CoRRB	Council of Renewable Natural Resources Research of Bhutan
DD	Dairy Division
DG	Director General
DoL	Department of Livestock
FAO	Food and Agriculture Organisation of the United Nations
GNH	Gross National Happiness
MoAF	Ministry of Agriculture and Forests
NBC	National Biodiversity Centre
NDDDB	National Dairy Development Board
NGO	Non Government Organisation
NLBP	National Livestock Breeding Programme
PD	Programme Director
RNR	Renewable Natural Resources
SA PPLPP	South Asia Pro Poor Livestock Policy Programme
TWG	Technical Working Group

List of Participants

Organisation	Name and Designation	E-mail Address	Mobile Number
South Asia Pro Poor Livestock Policy Programme (SA PPLPP) <i>Regional Coordination Office, New Delhi, India</i>	Ms Tinni Sawhney Regional Team Leader	tinni.sawhney@sapplpp.org	
	Ms Sheila Koyyana Programme Manager	skoyyana@sapplpp.org	
	Ms Ruchita Khurana Communications and ICT4D Coordinator	ruchita@sapplpp.org	
South Asia Pro Poor Livestock Policy Programme (SA PPLPP) <i>Country Office India, Pune, Maharashtra, India</i>	Mr. Subhash Eknath Pawar Country Team Coordinator	sepawar@sapplpp.org sapawar@baif.org.in	+919860835426
South Asia Pro Poor Livestock Policy Programme (SA PPLPP) <i>Country Office Bangladesh, Dhaka, Bangladesh</i>	Mr A.Q.M. Shafiqur Rouf Country Team Coordinator	rouf.s@brac.net	+8801711807976
Bangladesh Agricultural University, Department of Animal Breeding and Genetics, Mymensingh, Bangladesh	Dr. A.K. Fazlul Haque Bhuiyan Professor	bhuiyanbau@gmail.com	+8801715047767
Department of Livestock Ministry of Agriculture and Forests Thimphu, Bhutan	Mr. Koinchok Wangdi Chief Livestock Officer	ko_wangdi@moa.gov.bt	+97517884136
	Dr. Tashi Dorji Chief Livestock Officer	tdorji69@yahoo.com	+97517654849
	Mr Sithar Dorji Livestock Officer <i>SA PPLPP Country Team Associate</i>	dorji3@yahoo.com sithar@sapplpp.org	+97517543354
	Mr. Karma Tenzin Livestock Officer	karmatenzin@gmail.com	+97517662027
	Ms Chimi Wangmo <i>Country Team Assistant SA PPLPP</i>	chimiw@hotmail.com chimi@sapplpp.org	
Dzongkhag Livestock Office, Tsirang Dzongkhag, Bhutan	Mr. Dorji Dukpa Senior Dzongkhag Livestock Officer	dd77@druknet.bt	+97517841804
	Mr. Jampel Tshering Livestock Production Supervisor		
	Mr. Y.D. Subba Livestock Health Supervisor		+97517693810

Organisation	Name and Designation	E-mail Address	Mobile Number
National Livestock Breeding Program Department of Livestock Yusipang, Bhutan	Dr. D. B. Rai Programme Director	draib2005@gmail.com	+97517638183
	Dr. Lham Tshering Animal Reproduction Specialist – III <i>SA PPLPP Country Team Coordinator</i>	tshering@sapplpp.org	+97517611981
	Dr. M.P. Timsina Chief Livestock Officer	timsinampdr2003@gmail.com	+97517718099
	Ms Sonam Yangchen Livestock Officer	so_namyangs@yahoo.com	
	Ms Kinley Choki Livestock Officer	kins_chuki@yahoo.com	
National Biodiversity Centre Ministry of Agriculture and Forests Serbithang, Thimphu, Bhutan	Dr. Tashi Y. Dorji (Program Director)	yangzome3@gmail.com	
	Mr. Sonam Tamang Deputy Chief Biodiversity Curator	tamangty@yahoo.com	+97517715502
	Mr. Tshering Dorji	tshering_dorjee@hotmail.com	+97517864675
	Mr. Tshewang Senior Biodiversity Supervisor	kigkhart@yahoo.com	+97517998957
National Centre for Animal Health, Department of Livestock, Serbithang, Thimphu, Bhutan	Dr. Narapati Dahal Programme Director	dahalnp07@yahoo.com	+97517738158
Information and Communication Services Ministry of Agriculture and Forests Thimphu, Bhutan	Ms Tshering Doma Information Communication Officer	t_doma@moaf.gov.bt	
Regional Pig and Poultry Breeding Centre, Lingmithang, Mongar, Bhutan	Mr. Sangay Wangdi Farm Manager	swangdi01@yahoo.com	+97517636984
Dzongkhag Livestock Office, Haa Dzongkhag, Bhutan	Mr. Yeshey Jatsho Junior Extension Officer		+97577214746
National Poultry Development Centre Department of Livestock, Sarpang, Bhutan	Mr. Tshewang Tashi Programme Manager	decent_tashi@yahoo.com	+97517625134
Regional Poultry Breeding Centre Department of Livestock, Khanku, Paro, Bhutan	Mr. Chandra Ghallay Farm Manager	cghalley@yahoo.com	+97517650326

Organisation	Name and Designation	E-mail Address	Mobile Number
RNR-Research & Development Centre Department of Livestock, Jakar, Bumthang	Dr. N.B. Tamang Principal Research Officer	nbtamang@yahoo.com	+97517866132
	Mr. Dawa L. Sherpa Research Officer	sherdruk@gmail.com	+9751756132
College of Natural Resources Royal University of Bhutan, Lobesa, Punakha, Bhutan	Dr. Phub Dorji Dean of Academic Studies	pdorji001@yahoo.com	
Council for RNR Research of Bhutan Ministry of Agriculture and Forests Thimphu, Bhutan	Dr. Tashi Samdup Director	tashi_samdup2001@yahoo.com t_samdup@moa.gov.bt	+97517114221
	Mr. Chenchu Dukpa Chief Research Officer		+97517650075
Bhutan Broadcasting Service Thimphu, Bhutan	Ms Komal Kharka Reporter	deepsh_kharka@yahoo.com	
	Mr. Thinley Dorji Reporter	thindd_888@yahoo.com	
	Mr. Tsundu Dorji Reporter		+97517437906

ANNEXURE – I: Welcome Address by Dr. Tashi Dorji, Chief, Dairy Division, Department of Livestock Services

Welcome to the Honourable Chief Guest, Director for CORRB of Bhutan, DASHO Koinchoik Wangdi, Officiating Director General, DoL, Ms. Tinni Sawhney, Regional Team Leader, “South Asia Pro-Poor Livestock Policy Programme” Delhi, Distinguished Country Team Leaders and expert members of the SA PPLPP Project from India, Bangladesh and Bhutan, PDs NBC and NLBP; participants from CNR, District Extension and other field as well as central units of the ministry.

Ladies and Gentlemen!

It gives me immense pleasure to welcome the Chief Guest and the distinguished delegates and participants to this important workshop on “Conservation of Indigenous Poultry Breeds in Bhutan.”

Dr. Samdup, our Chief Guest today has played instrumental role in the initial conceptualization and the programming of this SA PPLPP project along side with officials of NDDDB, BAIF and other stakeholders. We are truly indebted to the Director for kindly consenting to be Chief Guest on this occasion.

We are truly appreciative of the Country Team Leaders and Experts of the Project from Bangladesh and India for sparing your valuable time to participate in this workshop. We extend warm welcome to Thimphu and look forward to your valuable contribution in this workshop.

I also extend hearty welcome to our colleagues from CNR, District Extension Service and participants from other central and field units.

This workshop is expected to generate valuable input for sustainable use of indigenous poultry genetic resources in Bhutan. This workshop has come at the most opportune time as our Poultry Enterprise in Bhutan is going through accelerated development phase that may have negative consequence on the indigenous poultry genetic resources.

The DoL and the NBC is co-hosting this event with support from SA PPLPP, Delhi. Once again, on behalf of the Organizers of the workshop I wish to extend warm welcome to the Chief Guest and all the distinguished delegates to this important workshop.

Tashi Delek!

ANNEXURE – II: Keynote Address by Dr. Tashi Samdup, Director, Council for RNR Research

Good morning, ladies and gentlemen! Ms. Tinni (Regional Team Leader of SA PP LPP), the engines of SA PPLPP Ms. Ruchita and Ms. Sheila, Distinguished representatives of SA PPLPP from Bangladesh, India and Bhutan, Programme Directors, Heads of various organization and my colleagues.

First of all, I would like to mention that I feel honored, to once again be a part of the South Asia Pro-Poor Livestock Policy Programme (SAPP LPP). About 5 years ago, when I used to work in the Department of Livestock, I had the opportunity to be an active participant of SA PPLPP, wherein, the memories and the knowledge I acquired especially the soft systems skills is something which I cannot easily forget. Although, my organization (CoRRB) does not have direct links with SA PPLPP, I would like to express my sincere thanks to SA PPLPP for still keeping me on the mailing list, which I share with my colleagues at CoRRB.

SA PPLPP is still young, but we need to applaud the achievements made till date. This I believe has been made possible because of the exemplary initiatives by the world renowned 'National Dairy Development Board, India' and FAO and the SA PPLPP Secretariat. And I sincerely hope that such an initiative grows from strength to strength.

Regarding this Workshop, I would like to express that this initiative of SA PPLPP is timely. This is perhaps the first regional level workshop in Bhutan which attempts to discuss issues on conservation of Indigenous Poultry breeds in Bhutan.

Bhutan's poultry population is extremely small compared to other nations. Perhaps, Bhutan may also be one of the few countries in the world where the poultry population is lower than the cattle population! Why is this so? This may be a question that we need to ponder, while coming up with policy frameworks.

The RNR Census 2000 reported that over 66% of rural household's rear chicken with an average flock size of four birds per household. When we compare the RNR census data of poultry population (2000 and 2008) at the household level, the % of the local poultry population in 2000 was about 95%, while in 2008 it was 90% indicating a slight decrease.

The workshop is titled as "Conservation of Indigenous Poultry breed of Bhutan," with an expected key output being the "development of a policy framework" to conserve and increase the number of indigenous poultry breeds and an action plan for breed conservation and up scaling!

Such an expected output is timely, but also challenging. It is timely because, DoL is in the process of framing a new and holistic Livestock Policy, and the new RNR (Livestock, Agriculture & Forestry) Research Policy has also been framed and will soon be operational. But it is also a challenge, because we still need to understand and deliberate on Poultry Conservation issues like: Why, What and How?

The importance of conserving our indigenous poultry breed cannot be underscored. For instance a recent report titled *[The State of the World's Animal Genetic Resources for Food and Agriculture \(2011\)](#)* which was presented to the "Commission on Genetic Resources for Food and Agriculture" has come out with an alarming revelation that over the last 7 years, one breed of domestic animals or birds a month was being lost to extinction from this planet. This is definitely an area of concern!

The common reason for such an unprecedented loss of diversity in farm animals has been invariably linked to poverty. It is natural that farmers want chickens that are fast growing and can lay triple the number of eggs than local ones, and cows that can yield 7 times more milk than our local breeds. While the immediate gains from such interventions look attractive, there is the great risk of creating a world of farm animals that are less resilient, less dynamic and less resistant to diseases and shocks. Can our poor farmers afford this?

Institutionally speaking, Bhutan has made some reasonable progress in the area of Conservation. For instance, till 1999, we did not have a concrete action plan on biodiversity conservation. In 2000, the National Biodiversity Centre was established in Thimphu. Since then the NBC have been working symbiotically with DoL and various other institutions in the area of conservation.

Amongst its various interventions, some include:

- Cryopreservation of semen of 6 different lines of indigenous poultry
- NBC in collaboration with DoL has also come up with a book that has documented most of our indigenous animal breeds titled “Animal Genetic Resources of Bhutan, 2008”.
- Conservation and performance study on indigenous poultry breed (*Yuebja*) is also being carried out in collaboration with the Research and Development Centre at Bumthang and College of Natural Resources, Lobeyasa,

These initiatives and programs are therefore commendable. But Conservation is not easy these days, especially in a region where millions live in poverty and socio-economic development has always been a priority. Therefore, when we talk of Conservation, we should educate the stakeholders that there are many dimensions to Conservation: We need Conservation for sustainable economic development, and we need Conservation from an environmental and cultural perspective. *Interestingly, all these dimensions are engrained in Bhutan’s development philosophy of GNH.*

We need a holistic approach to conservation, since smallholder farmers usually integrate poultry with other livestock and crop and horticultural activities.

- We need Indigenous poultry breeds because they are highly adapted to the local environments, and are also an integral part of the lifestyle of the rural people.
- While strategies should focus on improving indigenous breeds, but we must also make use of pure exotic and cross-bred chickens where appropriate.
- We need to conserve local poultry breeds possessing genetic variations specific to the particular environment, which is essential for sustainable development.

We live in a planet that is finite, but with population increase and economic development, the human needs and desires are becoming infinite. If we want Conservation to benefit our smallholder farmers, we must consider Conservation as a development intervention also, and not as some critics would say that it is an impediment to enhancing production and productivity.

In Bhutan, a recurrent question that arises is why should certain areas be declared as conservation areas for livestock, while other fellow Bhutanese farmers are reaping the benefits of improved animals?

There is no easy answer or solution to this, But I believe that the challenge is the need to follow the middle path, and make trade-offs based on the potential of agro-ecological zones, opportunities that exist in terms of socio-economic benefits and the cultural values that exist, while and at the same time keep in mind the needs of our future generations.

I talk of future generation because preserving the biodiversity of flora and fauna is a priority of our country. With the world wide concern on loss of genetic diversity, such preservation will also be useful in the future, for example, indigenous breeds could be a potential source of genetic resistance to diseases and other areas.

People, livestock and environment form a delicately balanced but sustainable ecosystem, and thus the potential impact of any intervention to improve production in the traditional system should be carefully assessed.

I am hopeful that this workshop will review and take stock of what has been achieved so far in the areas of Poultry conservation and development, and the Challenges and opportunities that exist such as social, cultural and technical aspects while attempting to draft a policy framework.

Development is dynamic, and so are the many development interventions that Bhutan and our Partner institutions in Bangladesh and India are embarking upon. Therefore, the sharing of experiences between the 3 member countries would be catalytic to learn from each other lessons: both success and failures in such conservations efforts.

I am sure that with this gathering of Country Team Coordinators, eminent scientists, researchers, development workers from the three countries and SAPP LPP, we will have a fruitful, yet critical discussions, and come up with some recommendations which could form a basis for further local, national and regional level interventions. Please also actively engage the local stakeholders especially the farmers and communities while formulating such policy frameworks.

With the excellent leadership provided by SAPP LPP in the region, and the good team work demonstrated by the member countries, I am confident that livestock policies from a Pro-Poor perspectives will be framed “Gradually but Surely”, wherein we (the present generation) and our future generations will not regret.

I wish this workshop a great success.

Thank You & Tashi Delek

ANNEXURE – III: Vote of Thanks by Dr. Lham Tshering, Country Team Coordinator, SA PPLPP, Bhutan.

Honourable Director, Council of Renewable Natural Resources Research of Bhutan (MoAF), Dasho Koinchoik Wangdi, Officiating DG DoL, Dr. Tashi Dorji Chief, DD, DoL, MoAF. Regional Co-ordination Team Ms. Tinni Sawhney, Team Leader and the members of the team, Country Team Members of Bangladesh and India, Dr. Tashi Yangzom and her team from NBC, Colleagues from the extension, ladies and gentlemen.

I on the behalf of the Department of Livestock and NBC, would like to express our sincere gratitude and heartfelt thanks to our Hon'ble Director, Dr. Tashi Samdup (CoRRB) for having agreed to be the Chief Guest for the opening of the workshop on conservation of indigenous poultry breeds of Bhutan despite his busy schedule.

I would like to express our sincere thanks to Dasho Koinchoik Wangdi and Dr. Tashi Dorji (DoL) for his continuous support and guidance for making this workshop a reality.

Let me also take this opportunity to express our sincere thanks to the regional coordination team leader Ms. Tinni Sawhney and members of the team from New Delhi for their valuable contribution in sourcing out the fund and their continuous guidance and support for the conduction of this workshop. This workshop would not have been realized without your generous support and your presence.

On behalf of the organizing team, I would like to convey our thanks to the country team members of SAPPLPP project from Bangladesh and India for making it possible to participate in this workshop. Your contribution to the outcome of this workshop is highly valued and it will definitely help us in coming up with concrete strategies for conservation of indigenous poultry breeds in Bhutan.

It will not be complete if do not express our thanks to Programme Director and her team NBC for having agreed to host this important workshop.

Last but not the least I would like to express my thanks to our extension colleagues who have been involved actively in the conservation of our indigenous poultry breeds and for their participation in this workshop.

Thank you and Tashi Delek!



SOUTH ASIA Pro Poor Livestock Policy Programme

A joint initiative of NDDB and FAO

