Regional Workshop on Agricultural Transformation: Challenges and Opportunities in South Asia
February 13-14, 2015
Trade Tower, Thapathali, Kathmandu, Nepal

1. Background

Nepal Agricultural Economics Society (NAES) is a non-profit and voluntary organization of professionals in Agricultural Economics field established in the year 2005. Since its establishment, NAES has taken initiatives for studies and research on the issues related to agricultural development policies and programs, natural resources management, macro-economic policies, service delivery, agro-industry, marketing and trade and related areas and suggest the government for appropriate policy formulation and its implementation. Given its role and responsibility in national agricultural policy and development areas, the NAES in collaboration with Ministry of Agricultural Development (MoAD), Government of Nepal and International Food Policy Research Institute (IFPRI) jointly organized a 2 day Regional Workshop on "Agricultural Transformation: Challenges and Opportunities in South Asia" from 13 to 14 February, 2015 in Kathmandu Nepal.

2. Objective

The overall objective of this Workshop was to discuss on the issues and challenges in agricultural development in South Asia focusing on 4 thematic areas and suggest policies for transforming 21st century agricultural sector of the South Asian region.

3. Participant

The regional workshop was participated by 94 national and international participants. The national participants were form MoAD and its underneath organizations like Department of Agriculture (DoA), Department of Livestock (DLS) and Nepal Agricultural Research Council (NARC). Representatives from National Planning Commission (NPC) Secretariat, other government organizations, Agriculture and Forest University (AFU), Himalayan College of Agriculture, Science and Technology (HICAST), Non-Governmental Organizations (NGOs) and Agriculture Enterprise Centre (AEC) attained the workshop. Besides office bearers and members of NAES, chair/representatives from different professional associations related to agriculture and economics were among the participants.

International participants attending the workshop were from International Food Policy Research Institute (IFPRI), Washington DC; IFPRI, India; National Agriculture Innovation Project (NAIP), India; NIE, India; University of Perdeniya, Sri Lanka, PPD, Ministry of Agriculture and Forestry (MoAF), Bhutan; South Asian Association for Regional Cooperation (SAARC) Secretariat; and United State Agency for International Development (USAID). The Detail of participants is attached in Annex 1.

4. Schedule

A two day workshop was held in Trade Tower, Thapathali, Kathmandu on 13-14 February, 2015. In day one, inaugural session was followed by key note presentation and few words by dignitaries and guests. In the technical session, papers on theme area 1 and 2 were presented and discussed. In day two, likewise, papers on theme 3 and 4 were presented which was followed by Kathmandu Declaration and the closing ceremony. The detail schedule of the workshop is given in Annex 2.

5. Proceeding

5.1. Proceeding of Day First

5.1.1 Session 1: Inaugural Session

The session was chaired by Dr YB Thapa, President, NAES and the Chief Guest was Mr Jaya Mukunda Khanal, Secretary, Ministry of Agricultural Development. The role of Note Takers were carried out by Mr. Kanchan Raj Pandey, Mr. Arun Kafle and Mr.Badri Khanal.

Welcome and Objective of the workshop: Mr Ram Prasad Pulami, General Secretary, NAES welcomed all the participant and highlighted the objective of this workshop. The detail of his welcome speech is mentioned in Annex 3.

Formal inauguration: Mr. Jaya Mukunda Khanal, Secretary MOAD (Chief Guest), formally inaugurated workshop by lightening traditional lamp.

Key Note Paper Presentation: Paper on Agricultural Transformation was presented by Mr. Yogendra Karki, Joint secretary MOAD (Annex 5).

He highlighted Nepalese agriculture scenario focusing on facts and figure and situation on high hill agriculture, mid-hill agriculture and Terai agriculture. He has also presented some factual information related to organizational setup, contribution to GDP, budget allocation, composition of AGDP, subsidy. He mainly focused on high population dependent on agriculture in Nepal and Agriculture Sector contributes almost one third of the economy. However, the budget in the agriculture is just 3 percent of the national budget. This is major challenge in agriculture transformation in Nepal.

He highlighted importance of transformation and agricultural transformation in Nepal. He also focused on challenges in agriculture transformation in Nepal, opportunities and way forward.

After the completion of Key Note paper presentation, session was proceeded with remarks by the guest and chief guest.

Few words: by Dr. P. K. Joshi, Director, IFPRI, South Asia

- Highlighted situation of agriculture in South Asia
- Gave emphasis on demand and supply side regarding transformation on agriculture
- Pointed out growth of agriculture is mainly contributed by high value commodities
- Close correlation between high vale commodity (HVC) and smallholder farmers as HVC gives quick, high and regular returns
- For agriculture transformation HVC should be promoted within smallholders but should consider challenges for transformation like rural urban migration, economies of scale
- Still there are challenges like increase food security, increase income, reduce market failure, production and climate risk
- First condition of transformation is to increase production by reducing yield gaps
- Should replicate best practice
- Role of public private sector should be properly considered
- Information and communication technology is also important
- Second most important factor is harnessing potentiality of existing technology by the use of proper variety, conservation agriculture, precision agriculture etc.
- Role of research and development is important so need high investment on this
- Linking smallholder to farmers should be emphasized
- We have to consider number of alternative models

- For transformation we must create enabling environment for private sector
- Emphasis should be given on climate smart agriculture
- Policy, institutions and technology should be considered

Few Words: Mr. MJH Jabed, Director, Agriculture and Rural Development, SAARC

- Highlighted 3 phases of agricultural development traditional (subsistence type till mid of 20th century), semi-commercial (1960-80, introduction of technology like high yielding varieties, fertilizers contributed green revolution) and commercial (1980 onwards focusing on capital intensive technologies like, biotechnology, ICT)
- Technological revolution caused increased yield in major commodities
- Transformation is complicated due to small landholding, climate change, trade barrier, resource exhaustion, biased and unfair food distribution, trans-boundary issues, high input use
- Involvement of SAARC and other international organization like FAO working together on agriculture
- Highlighted major points of 18th SAARC summit like seed bank agreement, regional gene bank agreement and so on
- On the behalf of SAARC secretary he appreciated the event.

Few Words: Dr. Somsak Pipoppinyo, FAOR

- Highlighted contribution of stakeholders in terms of policy tools and intervention for modernization/commercialization
- Private sector role should be considered for transformation
- Role of smallholders are also equally important

Inaugural Remarks: Mr. Jaya Mukunda Khanal, Secretary, MoAD (Chief Guest)

- Emphasized this workshop is important for livelihood, food and nutritional security
- Government of Nepal has initiated some works like programs and projects for smallholders, insurance and soft loan for transformation
- Promotion of small and commercial farmers is considered
- Need to accelerate agriculture productivity and production in Nepal
- This workshop is helpful in identification of problems/issues and provide way forward
- Recommendation from this workshop will be incorporated into the programs and policies of MOAD

The Inaugural Remarks by the Chief Guest Mr. Jayamukunda Khanal, Secretary MOAD is in Annex 4.

Closing of the session: Dr Y. B. Thapa, President NAES (Chair)

- Emphasized mission and vision of this workshop
- Justice and welfare issues on agriculture should be considered
- Physical, human and institutional capital should be considered for transformation
- South Asian communities have to work on several issues like trade and tariff
- Regional issues on agriculture should be considered

5.1.2 Theme 1: Accelerating growth in agricultural productivity and profitability

This session was chaired by Mr. Jay Mukund Khanal, Secretary, MoAD and the Co-chair was Prof. Dr. Mruthyunjaya Hegde, India.

Under this theme, four different papers were presented. The papers were mostly focused on agricultural productivity enhancement assessment, observations, and research.

Paper 1: Trends in Public Agriculture R& D Investment in Nepal and Comparisons with South Asia by Dr Gert-Jan Srads, Senior program Manager, IFPRI,Washington DC

Dr Gert-Jan Presented on "How Nepal is doing on Research part in Agriculture, the resources available within NARC?". He highlighted that just 0.28% of the AGDP is being spent presently in Agriculture research in Nepal resulting in poor research environment and development. Likewise, he highlighted how the funding crisis was there?. This occured mainly during the conflict period in Nepal which resulted in negative effect on Agriculture Research resource allocation and productivity impact.

Policy Implication recommendations: Long tern research policy is needed. No autonomy in NARC Side. Regular vacancy announcement is needed. Large scale training are needed to young researchers. Raising Retirement Age in NARC from 60-63 is needed. Incentive needed to publish in international journal. Bureaucratic procurement process should be ended. The detail of presented paper is in Annex 6.

Paper 2: Innovation, Competition, and Productivity Growth in Asia's Maize Seed Sector and Lessons for Nepal by Dr David J Spielman, Senior Research Fellow, IFPRI, Washington DC

He highlighted on low priority given to promote of agriculture and lack of good data sources. Likewise, there is serious measurement problem. Policy designed to promote seed industry growth require data and information. Even the data link between innovation and competition is not measured; who benefits from the innovation is not clear. Dr. David highlighted that Nepal have opportunities to promote its seed production as there is huge market in India. The detail of presentation is attached in Annex 7.

Paper 3: Accelerating Growth in Agricultural Productivity and Profitability by Dr. Bishnu Dev Pant, IIDS

Agricultural Growth and sustainability: cereals production increased by 2.25 times in past years. However growth of yield is low. Status of chemical fertilizer and improved seeds availability has increased, but still there is shortage of 800 thousand Mt of chemical Fertilizers.

Declining profitability of agriculture: This is due to working people have gone abroad. Nepal is one the least farm mechanized countries in South Asia. Mechanization policy needs to be implemented. Average cost and Net profit of selected cereals show cereals production is not a profitable business. The profit from vegetables and spices production is high however in cereals the profit is low. The detail of this presentation is included in Annex 8.

There are lot of programs and policies, many guidelines developed by MoAD. The officials' spend over 80 % of their time on meetings. The major issues and challenges are not adequate road networks connecting markets and production pockets. Agricultural Input Corporation Limited (AICL) does not have necessary capacity. There is a need to allow the private sector in import of seeds and promotion. We have to go for HYBRIDS and invest more in R&D in Agriculture.

Paper 4: Farm Household Typology and Agricultural Mechanization Patterns in Terai by Dr Hiroyuki Takeshima, Research Fellow, IFPRI, Washington DC

The major objective of the study (Detail in Annex 9) was to examine tractor use growth in Terai and some Siwalik. Terai was selected for the study as focus has to give where mechanization is actually happening. Study finds that in 1995-2010 period there was significant increase in tractor use. In 1995 just 8 % of farm house had used tractor which increased significantly in 2010, where use of tractor by farm households reached to 46 %. Female headed households were also using tractor. Hired tractors has increased over the years rather than owned tractor. The rate of rent for the tractor has decreased in 2010 as compared to 1995. One of the reasons for this is the use of small tractors as well as more competitive nature of tractor market in recent years.

The finding also showed that large farm owner switched from draft animal to tractor from 2003 to 2010. Tractors have increasing demand among farm households also for the use of other types of inputs. Not only there is an increase use of tractors but also there is an intensification of the use of chemical fertilizers and improved seeds. In overall tractor intensification is increasing. However, proper mechanization policy and programs is needed for the benefit of agriculture production and supply of inputs.

Discussion

Mr. Y.K. Karki, Joint secretary of MoAD sought clarification on first paper of the session regarding type of capital investment for research and development activities to the NARC. Similarly, on second paper he asked that Nepal is 67th position in world in terms of paddy productivity and 98th on maize, so what kind of varieties needed for increasing yield in terai, hills and mountain regions? He added some questions on Dr. Panta's presentation that why to decrease number of farms for effective research?

Dr. Dinesh Morothia questioned that Is R&D really low performing or just the expectation of academia and experts are not met?

Dr. Jagadish C Gautam suggested that we have to consider on what have been achieved till now. Population transformation is critical for economic transformation

Dr. Karim asked Why maize seed business from private sector is small in Nepal? Why Government of Nepal is subsidizing fertilizer?

Dr. Ganesh K.C. viewed that Climatic variation in Nepal is different than India and Bangladesh has already produced sufficient maize seed so how could Nepal benefit from maize seed business ?. In addition he questioned about the cause that NARC is not able to attract donors.

Mr. Sambhu Shrestha opined that we have to consider repair and maintenance facility and rental charge variation when we consider the use and promotion of tractors.

Mr. Tulsi Gautam sought the tangible outputs of first research paper and seed replacement rate (SRR) justification. He put forwarded his idea that in Nepal SRR is too low, the cost of maize for seed is almost double than grain in Jajarkot district of Nepal. He also put his suggestion regarding fourth paper that irrigation, technology and mechanization should be integrated into one package.

Mr. Dinesh Thapa from NARC opined that like the situation of varietal adoption of maize in Bangaladesh, Nepal has similar situation in rice, varieties developed in early 1990 are dominant in the farmers' field. Varietal adoption takes longer time sometimes upto 12 years. So, research and extension should focus on these issues.

Responses from related paper presenter:

Dr. Gert-Jan Stads clarified that the next step decision should be done by respective agencies. IFPRI suggested policy option. Furthermore, NARC should be autonomous in terms of funding arrangement, procurement and planning process- needs to be simplified.

Dr. David J Spileman said that research is the responsibility of public sector on greater part especially for germplasm conservation, breeding and development of breeding lines because private sector doesn't invest on upstream research like these. Hybrid varieties used in Nepal are from research and development spill-in effect from India and other countries. He opined that easy access on germplasm facilitates breeding and there should be proper seed to grain price ratio.

Dr Bishnu Dev Panta suggested that funding should be provided to farm station for research and extension. He added that for technology transfer we must consider farmers and we should reach directly to them through proper institutional and other arrangement.

Dr.Hiroyuki Takeshima suggested that mechanization and input like irrigation and fertilizer use are related which should be considered.

During the closing of first technical session, Co-chair Prof. Dr.Mruthyunjaya Hegde, India presented his remarks. The major highlight of his remarks were:

- All papers tried to articulate points on institution and policy inputs and it's time to introspect
- Analytical data provides strong foundation
- For increasing investment on R&D, we must develop evidences of returns to investment
- Sectoral, operational and funding constraints has to be analysed
- Governance and accounting problems in resource use has to be considered

3 Key messages:

- Lots of data base strengthening is needed.
- Attention for promotion of competition and private sector should be promoted
- There are lot of problems of implementation culture which is not good.

At the end of first technical session, chairperson presented following key points and concluded the session.

- Provided feedback for ministry in planning process
- Since 2 years government is getting enough budget and funding for R&D
- SRR is focused by Seed Vision
- Policy decision should be done based on topography and nature of district (one type of tractor may not fit in all)
- Government last year endorsed Agri-Mechanization Promotion policy due to many reasons like labor scarcity, high cost of production and feminization of agriculture
- Government also introduced youth focused programs

5.1.3 Theme 2: Convergence of policies and programs relating to sustainable and climate resilient agriculture

This session was Chaired by Dr. Dinesh Chandra Devkota, former VC, NPC and Co-chaired by Mr. Ganesh Kumar K.C, President, Nepal Agriculture Federation and former Secretary, Government of Nepal (GoN).

The Session included country presentations which were focused on experience sharing.

First of all, Dr. P.K. Joshi from IFPRI welcomed the participants and briefly presented the background of the theme. The key points of his presentation were:

- Risk in agriculture due to climate change increasing over time
- In the past, the programs and policies are not directly focusing on climate change issues
- There is a need to develop climate smart agriculture
- IFPRI is currently doing work on climate smart villages
- There are three important issues from climate change perspective: i) development of inventories of various programs and policies on agriculture, ii) analyse policies from climate change perspective (helping or mitigating) and iii) converging several policies and programs for effective implementation
- Recently developed policies like NAPA and LAPA are directly related to climate change
- Lesson learning from different countries on climate change will be useful.

The presentation session proceed by presentation of country specific case studies.

Case Study 1: Bangladesh by Dr Zahurul Karim, Chairman, CASEED, Former Secretary, Government of Bangladesh (GOB) and Executive Chairman, BARC

In Bangladesh, 62 % are engaged in Agriculture. Crops sector has 55 % contribution in AGDP. Fish production has increased. Some of the areas in south are only 1 m high from sea level. Drought takes place in the north part of the country. IPCC suggested if temperature increases by one degree, there will be no production of wheat due to heat stress during winter season.

Crop: 30 % of the area of the country is coastal that is affected by temperature, sea level rise. Fisheries: habitat is lost, production has increased but in aquaculture. Hilsa fish has depleted. Natural habitat has decreased. 12 species of fish are endangered.

Review of policies and programs is needed. There are lot of policies but the question is how to implement the policies. The method to incorporate the policy is seriously weak in Bangladesh. Country investment plan, National agriculture policy, food policy, master plan for south side, all are focused for climate change, hardly there is any program to work for that (The detail of Presentation is attached in Annex 10).

<u>Climate change related policies and actions.</u>

Bangladesh Climate Change Strategy and Action Plan (BCCSAP)

National Adaptation Plan of Action (NAPA)

Nationally Appropriate Mitigation Action (NAMA)

There are integrated work for food security program. Actions by convergence of policies/programs like

- Polder building/ maintenance

- Agricultural Adaptation
- Sustainable practices for agricultural; and water management
- Cultivation of low water consuming crops.

Resiliant farming practices are needed like : Salt tolerant, flood, drought tolerant varieties could be used for this. Strategies for developing sustainable and climate resiliant agriculture:

- adaptation against slow onset disaster
- adaptation of long term climate change
- general measures for building resiliant varitry
- 7th five year plan is trying to find the climate change related study.

Case Study 2: Bhutan: Mr Sonam Jamtsho, Asst. Planning Officer, PPD, MoAF, Bhutan

Share of agricultural GDP has decreased over last year. Agriculture contributes 16.18 % of GDP. Climate change in agriculture has resulted loss of production due to diseases, increasing scarcity of water and its impact on production, increased soil and nutrient losses, increased drought, loss of agriculture land.

More than 13 policies for climate change (CC) related work exist in Bhutan. Constitution of Bhutan ensures 60% of the forest all the time. The national Plan-11th plan of Bhutan focuses on green agriculture growth, climate smart agriculture, rainwater harvest, promotion of climate resilient agriculture, Climate smart village, Climate resilient crop varieties. Agriculture and Hydropower are most vulnerable from CC.

Challenges faced by Bhutan are poor data management, human resources and financial facility. Bhutan has no policy for crop insurance. There is decreasing public investment. Challenges are due to loss of agriculture land. More than 2000 ha have been lost from agriculture land. Mostly the male are migrating to urban part. Provision of financial facilities are problem.

Opportunity: Farm roads have been ensuring good market access.

Conclusion: Climate change is manmade. Coordinated efforts of all the stakeholders is needed.

Detail of this paper is attached in Annex 11.

Case Study 3: India: Dr. NK Tyagi

Agriculture is carbon and water based industry. There is no possiblity to segregate agriculture policy from other sector policy. Twenty five percent of Carbon is sequestered from Photosynthesis. Nineteen percent of green house gases (GHGs) are produced in Agriculture in India against Global figure of 13.5 %.

Concept of Climate smart agriculture include Climate smart intervention, Triple wins (world bank), feasible interventions. NAPAs are mainly for transitional phase.

The policies are similar in South Asia. The question is degree of implementation of these policies. Presently, there is subsidy in fertilizer and energy to increase the production and productivity. Major targets of the policy is to provide irrigation, fertilizer and mulching in agriculture. Changes in production and productivity is high due to effective policies in India. This bas prevented deforestation.

Tyagi presented about the test for assessing the policy success in meeting climate change impacts (Detail of the paper is in Annex 12). He added that green house technology reduces the minimum 50 % GHG emission. There is negative effect due to development efforts. At the present context, more water smart technology is needed. In India, genetically modified crops policy is developing.

Case Study 4: Nepal: Dr. Ganesh Raj Joshi, Adj Prof, AFU and Former Secretary, GoN

Agriculture is the engine of economic growth. It has considerable impact on climate change. Sustainable Agriculture- conserves land, water, plant, animal genetic resources, biodiversity, and ecosystem. Sustainable Agriculture includes smart practices.

Many sector policies are in implementation in Nepal. Landscape management having impact on a society and economy. Climate change linkages holds forest, health impact, disaster impact and agriculture as well as.

Dr. Joshi highlighted some CC responses in Nepal:

NAPA: It was formulated with six technical working groups consisting of agriculture and food security, forest and biodiversity, water resources and energy, climate induced disasters, public health urban settlements were the main contents.

43 most urgent and immediate adaptation actions are identified in NAPA. Fund needed to implement actions is around US$ 350 million. Country is receiving half of this amount now. Even government has started to invest on this.

Response: climate resilient planning framework developed, climate budget code adopted climate change policy formulated including pilot project on climate resilience.

National Biodiversity strategy and action Plan (NBSAP) prepared, National strategic framework adaptation is prepared. Options for climate change adaptation suggested were promotion of crop species and varieties, Promotion of upward. Green and blue water linkage for fishes.

Efforts required to reduce vulnerability of climate change (CC) are: System of rice intensification (SRI), Zero tillage, green manure, bio-energy, development of drought resistant varieties etc.

Agriculture Development of Strategy (ADS) of Nepal highly considers the issue of CC and disaster: research on stress tolerant varieties such as Good Agriculture Practice (GAP), Good Veterinary and Animal Health Practice (GVAHP), Integrated Soil Fertility Program (ISFP), Integrated Plant Nutrient Management (IPNM), Integrated Pest Management (IPM), organic farming and renewable energy.

Forestry sector Strategy of Nepal are Local Adaptation Plan of Action (LAPA), Reducing Emissions from Deforestation and Forest Degradation (REED)+, Community Forest Users Groups (CFUGs). Country is opting to mitigate CC trough REDD+, Nation low carbon Economic Development Strategy 2014 draft.

Issues and way forward put by Dr. Joshi are: poverty reduction and development, harmonization of policy is required. We have to prioritize locally available knowledge. Participation of the groups is needed. We have to strengthen the capacity of the individual, promote agriculture and irrigation (the detail presentation is mentioned in Annex 13).

Case Study 5: Sri Lanka: by Jeevija Weerahewa, University of Peradeniya, Sri Lanka

Several converging policies and programs exist for climate resilient agriculture in Sri-Lanka. Thirty five percent of the people in the country are in labor force and thirty percent of that are in Agriculture. Agriculture to GDP is around 10%. Eighty percent of people engaged in rural sector. Agriculture has impact in rural people. Climate change affect the various part of the

country and various types of agriculture. Right type of seed, right type of soil and other inputs are needed. Change in agriculture practice and change in agriculture water management are required for agricultural diversification.

Objectives of the study presented by Weerahewa was to assess inventories and analysis of existing practices in climate change. Weerahewa analyzed National and local policies of CC.

There are many national policies in Sri Lanka. Crop insurance scheme for crop compensation, Public investment Plan, Agriculture Management, water management, agricultural diversification policy, agricultural Science &Technology are some examples. There are also cross cutting policies like Environmental policy, and climate change policy.

The present policy objectives of the Government of Sri-Lanka have too much emphasized on farm incomes (instead of profitability) and rice self-sufficiency, which has reduced opportunities for diversification and commercialization of agriculture as well as these policies have given little emphasis on provision of the security to the farmers and it seems that there is no long term planning.

There is lacuna in policy design in the country because of less reliance on scientific evidence. There is higher need for strengthening extension services and insurance system for reducing risks and minimizing crop losses. Presently implementation of policies are being done by multiple agencies, but the work done and outputs achieved are not satisfactory.

Conclusions: Expedite the process of all the sector agriculture, livestock and fisheries. Other than reshaping, we should coordinate and increase the governance (Detailed presentation is attached in Annex 14).

Discussant

Dr Parakrama Weligamage, Sri Lankan Agri-economics Society

- Presentation from Bangaladesh was illustrative and it gave lot of information, included different sectors. The paper needs to account for integration and diversity within region.
- Bhutan presented structural transformation , conflict between human and wildlife
- India pointed out relevant things focusing on green revolution
- Overall, the workshop provided to identify priorities and policies they are mainly segmented and fragmented need, which needs umbrella organization to deal climate change issue

D.K. Marothia, India

- While dealing with convergence we must be clear on type of institution needed
- Basically we can consider 3 issues of convergence
    1. There is a need to understand nexus between water, energy and food security
    2. There is a need of different understanding about climate related disaster risk reduction (translating event into action is challenging)
    3. Wee need to design robust and smart agriculture development policy(requires sophisticated research to support government for analysis of policy and institutional mechanism)

Madan Koirala

- Policy convergence is a major issue
- Link water with food security and others

- Needs long term research on highland and lowland interaction
- Linking food security with climate change is needed
- Commonness in all papers is that many policies were developed but there is weak implementation
- Translation of policies into work will have good impact in the region.

Open Discussion

Prof. Dr.Mruthyunjaya Hegde, India

- Nexus between climate and community and development should be considered
- Policies should be examined based on pros and cons in specific context.

Ganesh K.C. Co-chair

- Nothing is stagnant
- Presentations will be helpful to develop climate smart agriculture
- Institutionalization of activities on climate change is the major problem
- The best presented technologies can be replicated in different countries and locations
- Nepal don't have research with respect to water requirement on different crops which should be considered in program design.

Dr.Anjani Kumar

- Gave vote of thanks to all participants and guests
- Broadened perspective of climate change and climate smart agriculture
- Highlighted more collaboration and partnership in future

Remarks by Chairperson, Dinesh Chandra Devkota

- Appreciated all for key points presentation
- Reviewed all presentation
- Highlighted poverty issue and climate change
- Convergence issues of agricultural policies
- Different models of climate resilient agriculture should be developed
- Identification, documentation, testing and dissemination is important
- Should make local initiatives
- Political commitment is needed for functioning of policy
- Tracking fund on climate change is needed
- Climate finance diplomacy should be considered
- Consideration should be given for policy/science interface (80% resource used by 20% science based societies and rest 20% is used by 80% non-science based societies)
- Intervention at all level should be considered

5.2. Proceeding of Day Second

5.2.1.Theme 3: Linking Small holders to Markets and Value Chain

This session was chaired by Dr. Bharatendu Mishra, Honourable Member, National Planning Commission, Nepal

This session included three papers.

Paper 1: Linking Small holders to Markets and Value Chain by Dr. Rajendra P Adhkari, Joint Secretary, MoAD

He highlighted the features of the small holders value chain as:

- Large number of small 'poor' actors who have less access to markets and cannot differentiate consumers
- Characteristics of net chains (multiple linkages) and engagement in long chains
- Wet market domination
- Market intermediaries are powerful; No crucial value addition are made by intermediary market actors
- Information asymmetry exist in the value chains
- Support from government and other stakeholders is crucial
- Missed opportunities for waste reduction, value addition and value capture
- Distance from consumers and markets

The take home message from this presentation is

- Horizontal integration among smallholders is pre-requisite
- Developing value chain thinking including consumer value orientation and collaboration to compete at all levels
- Supported from public policy and institutions
- Integration in domestic value chains (cost of compliance)
- Facilitation from non-value chain actors (state, CBOs, Cooperatives, NGOs) is must

Detail of presentation is in Annex 15.

Paper 2. Linking Farmers with Markets: Implications for Smallholders Dr. Anjani Kumar, Research Fellow, IFPRI New Delhi

He highlighted the challenges faced by the small holders which include

- Challenges to smallholders
  - small-scale enterprise,
  - low marketable surplus,
  - weak technical capacity,
  - lack of capital,
  - high vulnerability to risks and
  - inability to comply with emerging stringent food safety and quality standards,
- Fight a multi-pronged battle
  - capacitating the smallholders,
  - creating conditions to stand-up to the competitive externalities
  - ensuring viable business opportunities for all stakeholders along the value chain.
- Small holders constraints to access markets are
  - Resource constraints
  - Technological constraints
  - Subsistence needs
  - Financial constraints
  - Product constraints
  - Locational constraints

- Way forward:
  - Convergence of policies, institutions, technologies, infrastructure
  - Reduce policy gap
    - *lag between announcement and enactment*
    - *lag between enactment and implementation*
  - Evolve policies and legal framework for LFTM
  - Level playing field for private sector participation (regulations, taxes, etc. incentives)
  - Facilitate growers' association
    - *Check monopsony and monopoly*
    - *Reduce transaction costs*
    - *Involve smallholders*
  - Provide credit and insurance
  - Incentives to agro-processing industry
    - *Market fee, taxes on processed foods*
  - Strengthen public infrastructure (road, electricity, communication, etc.)
  - Capacity building and strengthening
  - Technology transfer mechanism (TTO)
  - Facilitate entrepreneurship, Incubation Centres
  - Pilot LFTM models with a few commodities to instill a sense of confidence among the stakeholders
  - One size does not fit all
  - Replicate successful models with local adaptation
    - *Objectives*
    - *Agro-climatic condition*
    - *Target markets/domains*
    - *Commodities*

Detail of this presentation is mentioned in Annex 16.

Paper 3: Maize Seed Value Chains in the Hills of Nepal- Linking Small Farmers to Markets Dr. Dilli B. KC

He highlighted the efforts made in linking smallholders to markets (The detail of paper presented is in Annex 17). These include linking Primary CBSP groups to Strategic Groups Cluster/ Regional Seed Trading Hubs, *Support for market competitiveness (Qquality)*:

- Infrastructure/ equipment support for seed processing and grading.
- Field inspection and lab test (SQCC, RSTL) and Pre-sowing Seed Contract (First initiative in maize seed in hills) (CBSP<HMRP>Traders).

Capacity enhancement: Seed Revolving Fund and Market Promotion Support (TL, Branding, Packaging, Add), Market information (Radio jingle, News, and Webpage) What variety and where? Institutional development (CCC), (CBSP Group- Cooperatives- Company), Enabling environment (Licensing, Decentralized source seed production, Harmonization of seed production).

Conclusion and recommendation:

- Eliminate intermediaries who pocketed large share of the margins. (Optimization?).
- Seed producers could maximize margins if they operate and streamline through cooperatives/ federations (increase bargaining power)
- Excess margin at retailer level can be reduced by providing support in packaging, branding, add, and buy-back or subsidy equivalent to "difference in seed and grain value").
- Branding, Packaging, Labeling at trader level
- Clarity on the role of private and public sector.

Discussant:

Discussant of the session, Mr. Pradip K Maharjan, AEC

- He Summarized all 4 papers
- Dr Ahikari presented briefly about effort of government for developing markets to the smallholders, gave examples of different projects
- Told government and FNCCI working together for commercialization and import substitution
- Dr Anjani gave examples of success stories
- Dr Dilli linking farmers to market is challenging and agreed version of no single solution due to different scenario of countries in South Asia
- Farmers have to compete more due to the effect of globalization as most of the farmers in SA have small landholding, lack of capital
- In maize seed informal supply is prominent
- Private sector should be included in to program planning and implementation
- These days we must consider public private partnership in agricultural development
- The models like contract, cooperative and group each have several challenges and government should facilitate the farmers
- In Nepal cooperative is not successful as compared to other countries due to political influence, cooperative should focus on production and marketing
- For increasing responsibility, private sector should be included in value chain activities

Open discussion

Rajendra Adhikari has highlighted question of sustainability in value chain intervention

Similarly, Dinesh Marothiya highlighted following points in order to be successful in linking smallholders to farmers

- How to minimize transaction cost that implies transformation from one shape to another
- How to convert collective wisdom/action to enhance value chain system at every stage as the presentation of CIMMYT has included
- As model shown by CIMMYT and other in the presentation we must look basic issues when change in institutional arrangement happens in terms of converging from one regime, what is the associated cost, static and dynamic costs, how effect on long term and value chain exit strategy.

Anjani Kumar highlighted

- Inclusiveness is not environment ,it is empowerment that means comfort/more proportion of consumer rupees tied with smallholder otherwise involvement of smallholder is not inclusive

Rajendra Bhari shared experience from HVAP project that

- Project tried to reduce number of middleman in the commodities trade in the area but could not. This strategy worked for vegetable seed value chain but in case of ginger and Timur not working. Thus we have to see socio-dynamic situation, producers capacity(technical, business, managerial)

Kalika Adhikari from AFU highlighted

- Consider role of smallholders in value addition activities of value chain
- Must know inbound and outbound logistics, in integration benefit must be transparent which is major for value addition
- Policy should hit problems of smallholders and also should consider the problems that is beyond the control of smallholders

Tulsi Gautam opined

- In order to reduce vulnerability to the smallholders, needs market option/choice
- In case of highly perishable product like tomato cartelling prevails, so based on the nature of product both horizontal and vertical linkages is needed.

Devendra Gauchan from NARC pointed out that Legal aspect for linking smallholders to market not considered during presentation and he suggested presenter to consider legal aspect like contract farming act.

Response from the concerned presentators

Rajendra Adhikari clarified that

- Value chain should be driven internally(energy of actors) , government has role to develop capability/thinking which makes it sustainable
- Value chain is based on trust not on regulation, simple legal arrangement work but it is not prerequisite

Anjani Kumar clarified as

- It is better to enhance collective bargaining power of smallholders
- Excessive regulation hampers on smooth functioning. Government should act as facilitator and has role on developing infrastructures

Dilli Bahadur K.C. clarified as

- Though value chain is based on mutual understanding but in filed observation, contract should be linked legally. Agribusiness bill if passed will ease these things.

After short open discussion, session was concluded with some remarks from session chairperson.

Few Words by Bharetendu Mishra, Hon. Member, NPC

- Nepal is facing food security problems and agriculture is prioritized sector
- Narrowing gap of export and import of agricultural commodities is also challenging
- We have big challenge as we are trying to graduated to developing country within 2022.

- Farmers and consumers choice is changing according to time .Cereals based production system is shifted towards high value crops but smallholder are not getting proper price.
- So we have to make farmers aware and focus on market led production
- Price is important factor for production and research should focus on such like keeping quality and others
- Outmigration caused labor shortage in agriculture
- Planning process should give emphasis on overcoming problems of smallholders
- Consumers choice is also changing thus production should be based on this.

5.2.2. Theme 4: Diversification of Agriculture: Opportunities and Challenges

Chair: Mr. Tek B. Thapa, Former Agriculture and Forest Minister, Nepal

There were four presentation in this session.

Paper 1: Bangladesh

Zahurul Karim from Bangladesh shared country experience on diversification of agriculture. Major Highlight of his presentation were:

- Bangaladesh small country with large population (160 million)
- Diversification in small area
- Rice is dominant crop as 73% of agricultural land is occupied by rice
- Farmers also grow vegetables, spice and agroforestry species
- Like Sundarban there are 16 protected forests
- Fisheries and livestock are next important sectors
- Most farmers are doing mixed type of farming
- Agriculture contributes 20% to GDP, 6% from fish and 2% from livestock
- Farmers food security is top priority that's why rice is the number one crop
- Flat plain areas are major source of fish
- Small and indigenous fish are major source of nutrients
- Rice and fish farming are competitive as area availability is dependent on the area expansion of each commodities
- Rice research is in advance stage with many varieties available, milled rice production is around 37.8 million ton
- Pulses and oilseeds are imported
- Vegetable production increased to a large extent
- potato and surplus rice are exported
- Price difference is high on agriculture commodities
- SPS related issues are problem from export
- Research and development is sufficient for rice but other commodities are lagging behind
- Infrastructures and human resource for agriculture is not sufficient
- Climate change created threat for agriculture in Bangaladesh

Paper 2: Nepal by Dr. Y.B. Thapa, NAES; Hem Raj Regmi, MoAD; and Madan Thapa, Business Management and Sociology, Renaissance Society Nepal

The paper stresses on the issues like balancing food grains security and HVACs, effect of agricultural diversification on labor productivity and agricultural growth, and factors affecting agri-diversification. Dr. Thapa highlighted that cereal production in South Asia is

lower than that of world average. Similarly, he highlighted the agri-diversification of South Asia, HVACs area in Nepal, and factors affecting the agri-diversity in Nepal.

Food insecurity situation, negative effects on HVACs, and so on. He further concluded that: necessity of land bank development; positive role of credit, farm mechanization, and use of hybrid seeds (detail of his presentation is in Annex 18).

Paper 3: Agricultural Diversification in Asia: Nepal and its Neighbors by, Bingxin Yu, Research Fellow, IFPRI, Washington DC and Edina Metili Mwangi

Dr. Yu pointed out determinants of agriculture diversification. He explained that rice dominance income from it decreasing and horticulture importance and income form it is increasing in Asian countries including Nepal. In Nepalese condition, diversification is found low in rice dominance area; whereas the condition is reversed in non-rice dominance area. The analysis on supply side and environment factors in Asian countries were also analyzed. His concluding observations included:

- Income growth and urbanization led to shifts in consumption
  - Decrease in grain consumption
  - Increase in higher-price, more nutritious food
- Shifts in domestic production in response to demand changes
  - Share of staple decreases
  - Share of horticulture (fruits and vegetable) increases

Detail of presentation is attached in Annex 19.

Paper 4: Agricultural Diversification and Trade in South Asia by Dr. Krishna Prasad Pant, KU

Dr. Pant started with types of rural livelihood diversification on employment, income and agriculture (detail of his presentation is in Annex 20). He explained types of divers of agriculture diversification, why diversification, its role in green economy, and difference between specialization and diversification. Further, he explained on agriculture diversification at different level and its role in trade. His conclusions were:

- Diversification at farm level for green economy
- Specialization at agro-ecological region basis beyond the political border
- Diversification in South Asia for trade promotion, efficiency and competitiveness

Discussant:

Dipendra Bahadur Kshetry, Former Vice Chairman of NPC and Governor of Nepal Rastra Bank was the discussant of this session. His major highlights were:

- All presentators presented their scenario nicely
- Nepal have to learn from Bangaladesh, Nepal imported paddy cost Rs 120 million. Also we have to consider inland fishery .
- Major theme of diversification is food security of people based on we should determine sectoral priority .
- Nepal can export legumes/oilseeds though in case of legumes some exaggeration on export is made due to the provision of providing 1% subsidy on total value of the exported commodity
- High dose of fertilizer and pesticide use is serious issue as Mr Y.B. Thapa pointed out fertilizer use statistics which is very high in Bhaktapur district.

- Interesting finings as irrigation, road network and closeness to market is negatively correlated
- Yu Bingxin gave elaborate picture of south asia
- Urbanization and growth in income are important for diversification
- The issue raised here should be considered
- Rice based production is diversified by horticultural commodities
- Panta's presentation is applicable to agrarian transformation
- In Nepal educated person are reluctant to do farming but recently we can observe certain changes
- Risk is the major factor for diversification which is clear from pantas presentation
- Reallocation of productive resources/factors of production like capital and paid labour is vital
- Consumers demand should be considered
- Export potentiality of crop is important (eg cardamom more than 100 thousand rupees per 40 Kg)
- For cash and spice crops contract farming system should be promoted

Open discussion

D.K. Marothia questioned that who is is owner of Bangladesh fresh water aquaculturev? private or community? and do they have leasing policy? Similarly he suggested Dr. Y.B.Thapa for pragmatic approach and bringing out suggestion for Nepal. He asked to Mrs. Bing that what is the direction of diversification from composite weighted index. He also suggested Dr. Pant that Geographical indication should be the major point for effective traceability.

Pusparam Bhakta Mathema, Former President of NAES suggested future forums on food security among SAARC. He focused his idea to create environment for better accessibility and stability of foods, development of markets access. He suggested macro level discussion on how planning process is going and how this process can be improved.

Basu Dev Kafle,MoAD opined that emphasis of diversification was given only to crop excluding livestock product. He suggested that food diversification including marginal crops like millet, oat should be considered.

Shreeram Ghimire MoAD interested to know the reason why such big price variation on cabbage within small distance occurred in Bangladesh and furthermore the he wanted to know the reason behind negative correlation between diversification and infrastructure in Dr.Thapa's presentation

Madhav Karki stated that diversification is induced by public sector in Nepal as APP has given emphasis on high value commodities that is a question of sustainability. He suggested presentator to talk about drivers and obstacles of diversification and to consider the Governance part like emergence of syndicate in transportation.

Laxman Paudel asked Dr. Pant to justify the statement that diversified product are sustainable. He also sought clarification whether there is need of regular government intervention to make diversified product sustainable or not?

Ganesh Joshi opined that diversification depends on how evaluated or looked into scale (pocket to national) and basically pocket is not for diversification.

Responses from presentators

Zahurul Karim clarified that Fresh water aquaculture is driven by private sector. The causes of big price difference in Bangladesh in agriculture is mainly due to failure of

governance(transport syndicate), production within a narrow time (1-2 month in case of cabbage), lack of processing and other value chain related activities

Y.B.Thapa clarified the issues on him as

- Dependent variables like aggregated area under crops, combined area are the indicators of diversification
- In case of import like rice, there is no alternative(alternative of rice is rice) first we have to be self sufficient, in case of pulses report prevails
- Scale of production is important
- We need to act regionally for commodity export
- In case of study data taken from national agriculture sample census
- Law of variable proportion applies in negatively contributed field(is road development is in line with the needed area)
- Urbanization policy is not tuned with agriculture policy in Nepal
- Importance of crop is the driving force for diversity
- We are still not creating conducive environment for diversification but we are in process

Yu Bingxin accepted to incorporate all comments in future.

Dr K.P.Panta clarified the issues raised in his presentation as

- Risk depends on perspective, difference enterprise at once helps to minimize risk
- Geographical indication goes to specialization not diversification
- Under diversification so many commodities like livestock comes
- Infrastructures like market increases diversification
- Diversification increases sustainability

Remarks from Mr. Tek Bahadur Thapa, Chair

- Mr. Chair mentioned that diversification of HVP can offset low price in cereals and traditional exports. He mentioned that change in consumer diets is the forces of diversification which brought about by income growth and urbanization. In south Asia we have unique feature of diversification
- Technology is driving force emphasis of research and development in other sector is needed as focused by Bangaladesh
- Experience sharing is good opportunity

His complete remarks are in Annex 21.

6. Closing session

Chair: Dr. Bhawani Dhungana, Senior vice-president, Nepal Economic Association

6.1. Summary of the thematic paper

Presentation on summary of four Theme of the workshop was done by Dr. G.R. Joshi and Dr. Devendra Gauchan. The summary was as follow:

Inaugural session & Theme 1, 2

a. Key note (Inaugural session)

- The agricultural food system transformation both from demand and supply perspective.

- From the demand side, the demand for cereals is decreasing while the demand for high value commodities is increasing.
- Increase in income and changing dietary patterns in the urban areas.
- Food safety concerns have grown considerably in the recent years.
- From the supply side, the share of agriculture in GDP is decreasing and also the population dependent on agriculture.
- However, the number of small holders in South Asia is increasing over time.
- Agricultural growth used to come from cereals during green revolution period while it is from high value commodities in the recent decade.
- Small holders need quick and higher returns to sustain their livelihood that comes from the HVCs.
- There are also challenges to small holders commercialization.
- They have very less access to information, technologies, credit and insurance.
- The transaction cost is also high.
- The practice of cultivating HVCs used to higher because of the surplus labor at farm.
- Because of the rural-urban migration leading to labor shortage and increase in the wage rate, this has not been profitable.
- They also face risks associated with production, price, weather etc. which need to be mitigated for improving food and nutrition security.

b. Theme 1: Accelerating Agricultural Productivity and Profitability

- Accelerating growth from institutions and policy perspective: It is important to recognize the issues raised by the presenters on the agricultural growth, interventions at different stages, growth of private sector and their participation in agriculture.
- It is a time to analyze from retrospective. Quality Data limitation do not help us to make thorough investigation of the issues properly.
- Why should we invest 1% of AGDP to ag research? Logic and analysis needed. See the Returns to Investment, How can we reformulate or restructure the institutions that are not performing. Transforming from a good organization to a great organization? What are the parameters for this transformation?

Agricultural transformation should involve

- Accelerating agricultural productivity growth and reducing gap between promised yield and yield at farmers' field
- How to involve private sector in agricultural development, creating enabling policy environment (especially for innovation in ICT).
- Harnessing the potentials of exiting available technologies (soil and water conservation, precision agriculture, resource conservation)
- Increasing investment in agricultural technology generation and carryout empirical research to convince the policy makers on the investment level/scale.
- Structural rigidity, operational problems, funding/mobilizing resources, governance problems are common in South Asia research and development institutions.
- How innovation and competition should be looked into?
- Sense of strengthening data base system for informed decision making.

- A lot more is needed in promoting innovation, competition and involvement of private sector.
- A lot of problems in implementation, internal issues also should be looked into.

c. Theme 2: Converging policies and programs for sustainable and climate resilient agriculture

- SCRA needs to be implemented using an integrated, cross-sectoral approach to agriculture and food security that links it to other aspects of sustainable development, poverty reduction and economic growth.
- Convergence at different levels, institutions, policies and programs considering farmers' concern
- Climate compatible agriculture and convergence of policies considering nexus between water-energy-food security.
- Poor understanding about the convergence – may lead problems with farmers and communities
- Data and information gap exist in CSA technologies and support.
- Deeper understanding on climate related disaster risk management
- In order to design the robust CSA policy for convergence, we require to support through research results to government at different levels. Also we do need a roust mechanism to implement CSA.
- Capacity building of implementers, farmers
- Identification and up scaling of local resilience building tech/practices
- Strengthen existing early warning systems including a system for seasonal climate forecasting
- Governance improvement (service delivery, implementation)

d. Theme 3: Linking Farmers to Markets & Value Chain

- Different models of value chain and market linkages presented (e.g. PACT, HIMALI, HVAP, etc.) from Nepal and outside Nepal (e.g. India and other countries)
- Market Integration models and Opportunities (opportunities and threats) –Farmers-Retailers, Cooperatives, Farmers- Agroprocessing (agroindustry) linkages, Contract Farming,
- Models linking Farmers to Markets are they inclusive?- most studies show inclusive. Transactions costs have been reduced by vertical integration
- Horizontal integration is desired approach not only vertical integration for VC and markets
- Different models of value chain and market linkages presented (e.g. PACT, HIMALI, HVAP, etc.) from Nepal and outside Nepal (e.g. India and other countries)
- Market Integration models and Opportunities (opportunities and threats) –Farmers-Retailers, Cooperatives, Farmers- Agroprocessing (agroindustry) linkages, Contract Farming,
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- Horizontal integration is desired approach not only vertical integration for VC and markets

- Linking farmers to market depend on socioeconomic situations, locations, market access, access to infrastructure, local policy environment and typology of the farmers etc.
- Convergence of policies, institutions, technologies and infrastructure is needed for appropriate value chain development
- Ensuring inclusiveness, transparencey and accountability, capacity building and strengthening including policy gaps and implementation issues but less focus on how type of technology development (research) will impact on linking farmers to market and value chains.
- Smallholder value chain are multiple number and have limited access to markets and they cannot differentiate consumers
- Benefits of VC depends on how strong it is the post-production approach
- Current value chain approach has not focused more on producers (supply driven) bu not much on consumers (demand driven)
- Linking farmers to market and value chain is important to improve market integration and market efficiency and inclusive agriculture development

Discussion and Comments from Discussants and Participants

- There is no single solutions replicable across country for linking small farmers to market and value chain across South Asia
- PPP model is essential for linking farmers to market
- Improve welfare of small farmers through contract farming –through legal and regulatory support from GoN (e.g. Contract Farming Act, Agribusniess Promotion Bill etc.)
- Harmonize social issues (inclusiveness) with market dynamics for better welfare of farmers

e. Theme 4: Diversification of Agriculture: Opportunities and Challenges

- Technology is a major driver of diversification (e.g. Bangladesh)
- Education and mechanization have major impact on diversification (e.g. paper from Nepal Dr. YB Thapa)

Methodological approach and Tools

- How to measure diversification?
- Simpson Index, Herfindahl Index, Shannon Index etc.
- Diversification to HVP, change in consumer diets, food safety, income increase, technology, infrastructure development are essential for diversification
- Market development, youth involvement and enabling policy environment are also important for diversification

Discussion and Comments from the Floor- (Theme 4)

- Questions of sustainability of diversification
- Product and food diversification of local (indigenous) crops needed
- Elements of governance is essential for mitigating constraints of diversification (e.g. failure of governance in transport sector such as transport syndicate)
- Lack of suitable policy and legal framework (e.g. marketing act, contract farming act etc.) for processing and value addition for diversification

6.2. Kathmandu Declaration:

South Asian Agricultural Economists' Kathmandu Declaration

13-14 February 2015

Preamble

The agricultural economists and related professionals held a two-day conference on 'Transforming the South Asian Agriculture: Challenges and Opportunities' in Kathmandu with participants from Bangladesh, Bhutan, India, Nepal, Sri Lanka, and officials of International Food Policy Research Institute, Ministry of Agriculture/ Nepal, UN FAO, SAARC Secretariat, Nepal Economic Association and Nepal Agricultural Economics Society from 13 to14 February, 2015. This conference considered some 19 papers on the major thematic areas of agricultural transformation, namely, agricultural productivity and profitability, sustainable and climate-resilient agriculture, linkage of smallholders to markets and value chains, and diversification of agriculture. Considering the state of agricultural economy and the need for developing the agricultural economics profession in the region alongside other aspects such as institutions, industry, and ecological systems, the Conference Participants issued "Kathmandu Declaration on Agricultural Economics" on 14 February 2015, and decided to pursue a 10-point agenda.

10-Point Agenda of Kathmandu Declaration on Agricultural Economics

i. Carry out a constant dialogue on food, agricultural, and agrarian relations with the Governments, SAARC, industry chambers, and CSOs on policy formulation.

ii. Undertake research and analytical work in the disciplines, and substantiate them with scientific facts and figures, and relationships.

iii. Build the capacity of agricultural economists in the analytical techniques and policy analysis, and boost up their effective roles.

iv. Establish a network of the professional societies in the countries and the region for higher professional collaborative R & D work.

v. Organize the agricultural economists and related professionals, their societies, and trustees to establish a South Asian Agri-Economics Association and develop it; and launch the Association's Journal and related publications.

vi. Maintain a roster of experts in the region to act as reviewers for publication.

vii. Carry out research by identifying the issues of common interest and organize conferences.

viii. Explore the sources of funding for policy research, policy communications, and related works.

ix. Carry out collaborative works with the regional/international organizations (such as IFPRI, IRRI, CYMMIT, ICRISAT, UN Agencies, and the like), and

x. Facilitate the discourse of South Asia's agricultural professional associations in various fields with similar international professional bodies.

Open Discussion

Badri Khanal said that Nepal has similar environment, several policies like other countries in South Asia, but there is huge gap in implementation. He asked whether there is any mechanism suggested by IFPRI for south Asia over these issues?

Zahurul karim suggested that we should consider both positive and negative aspect of contract farming act before implementation, in such policy perspective and he opined that IFPRI can work together.

Pradhumna Pandey suggested that production diversification is the best way to mitigate trade deficit

6.3. Vote of Thanks

Ram P Pulami, General Secretary, NAES provided vote thanks to all who made the event possible (Detail of his speech is in Annex 22).

6.4. Closing Remarks

During the closing of the workshop, closing remarks were delivered by representative from IFPRI, MoAD. Finally session was concluded with remarks by the Chairperson of the session.

Dr Suresh Babu, IFPRI

- Kathmandu declaration shown several opportunity in south Asia
- Thanked all participants
- This workshop bring together similar mind, expertise and challenges
- For agriculture transformation all elements of agriculture sector needs to transform
- Education, extension and farmers are needed for complete transformation
- Should not rely on foreign consultant for the development of nation, better nation is build through utilization of national expert
- For the development of nation we need to be great economist from the good
- National journal should attract internationals for publishing articles
- What is our contribution for policy making plays key role in transformation
- Declaration should provide space on conducting research based on evidences and usefulness to the policy making
- Should include capacity building(skill transformation)
- Policy communication, collaboration and capacity building parts should be considered in this declaration.
- We must set some indicator and monitor progress based on this needed refinement on indicator should be done that helps to develop agriculture sector

Rajendra Adhikari, MoAD

- High inclination of endorsing policy in Nepal due to policy push
- We have around 50 policies but lacking science based/fact based policy
- We need policy related research in South Asia

- MoAD is ready for collaboration in policy sector for reforming agriculture

Bhawani Dhunagana, Chair of the Session

- Nepal Economic Society is ready to work together
- New areas/scenario is going to be evolved
- Political change lead drastic reform in economic areas like poverty for this agriculture have to pay big role
- We must be clear on priority areas versus diversification
- Proper program implementation is prerequisite for achieving goals
- We are the members of WTO so price and input subsidies are short term measures. In order to be competitive we must build our capacity and facilitate private sector
- We must consider productivity and profitability issues as agriculture productivity of Nepal is lowest in south Asia
- Government should play lead role through institutional and infrastructural development for the private sector
- Multinational trade system are the guiding principle of our trade
- Harmonization of policies, cooperation and research and development support for private sector are the major issues
- Infrastructural development in agricultural sector is needed for augmenting yield
- For developing value chain we must look prospect of establishing international product network in south asia
- We have tremendous opportunities to catch regional market as demand of high value commodities are increasing
- Agricultural products have to face more stiff competitive revelry than other products

7. Acknowledgement

We express our heartfelt gratitude and sense of appreciation to Mr. Jaya Mukunda Khanal, Secretary of Ministry of Agricultural Development for his affectionate encouragement and invaluable suggestions during conduct of entire workshop. We are grateful to Mr. Yogendra Kumar Karkee, Joint Secretary of MoAD and his entire team for their continuous support. Who are also worked hard to arrange partial fund from MoAD to organize this workshop.

It is our pleasure to extend our sincere gratitude to Dr. P.K. Joshi, Director, International Food Policy Research Institute-South Asia, New Delhi and his entire team for their invaluable suggestions and prudent advice provided during the successful organization of the workshop. Furthermore, we are also highly indebted with the financial support received from IFPRI South Asia.

Thanks are due to all members of NAES and other professional society who directly and indirectly helped a lot to make this workshop a grand success.

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Vote of Thanks by Mr. Ram Prasad Pulami, General Secretary, NAES

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Government of Nepal, Ministry of Agricultural Development, IFPRI and Nepal Agricultural Economics Society jointly organized and accomplished today the 2 days workshop on Agricultural Transformation: Challenges and Opportunities in South Asia. In this workshop, 17 papers in 4 thematic areas were presented from 5 South Asian Countries and IFPRI discussed lively. Those analytical presentations have enriched our knowledge base. Now, we have announced Kathmandu Declaration towards Agricultural Transformation in South Asian Countries to implement in the days to come.

In this stage, I will appreciate and extend my gratitude to those who directly and indirectly involved, and participated and contributed to make this important even a success.

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