Nepal Floriculture Sub-Sector

A Concept Paper

Prioritizing the Sub-Sector in the Government Policy and Strategies
Including the NTIS

Floriculture Association Nepal (FAN)
Kathmandu, Nepal

Supported by

जननी जन्मभूमिश्च स्वर्गादपि गरीयसी

Ministry of Agricultural Development (MoAD)
July 2015

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Published by:

Floriculture Association Nepal (FAN)

Battishputali-9, Kathmandu Nepal

Tel/Fax: 977-1-4465704

Email: fan_nepal@yahoo.com, info@fanepal.org.np

Web: www.fanepal.org.np; www.nepalfloraexpo.com.np

Design and Layout By:

Sabin Maharjan

Printed By:

S.2. Printers

Naya Bazar-16, Town Planning

Tel:4358921, Mobile: 9841722948

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Preface

Floriculture is a new but emerging business in Nepal. In the past 25 years business volume has grown by more than 70 folds. The Government of Nepal has encouraged the private sector entrepreneurs by announcing the Floriculture Promotion Policy of Nepal in 2012. And, the entrepreneurs are enthusiastically looking forward to an effective implementation of action plans that are backed by strategies of the policy. This sub-sector also demands regulatory and institutional restructuring to create business enabling environment thereby to attract additional investment for its technological modernization and setting up of appropriate infrastructure.

A need was felt to develop understanding on how current changes in different factors are affecting Nepal's position in floriculture sub-sector and identify practical strategic measures to address the critical issues and challenges. This study was conducted by the FAN with a view to supporting the process of policy implementation and formulation for production and marketing development of floriculture.

I would like to acknowledge with thanks to Technical Team of the FAN in preparing and editing this document. I wish to extend special thanks to members of FAN Advisory Board, Dr. Umed Pun and Mr. Murari P.Gautam Upadhya for their analysis and inputs during the preparatory phase of this document. I would like also to record the appreciation of all endeavors the Ministry of Agricultural Development (MOAD) in enthusiastically initiating and providing financial supports to the FAN in making this publication possible.

Lok Nath Gaire
President
Floriculture Association Nepal (FAN)

Abbreviations used

AEC	Agro Enterprise Centre/ FNCCI
ABPSD	Agri-business Promotion Statistics Division
ADS	Agriculture Development Strategy
AfT	Aid for Trade
DADO	District Agriculture Development Office
DoA	Department of Agriculture
DoC	Department of Customs
FAN	Floriculture Association Nepal
FDC	Floriculture Development Centre
FDI	Foreign Direct Investment
FNCCI	Federation of Nepalese Chambers of Commerce and Industries
FY	Fiscal Year
GON	Government of Nepal
Ha	Hector
HDD	Horticultural Development Directorate
HRD	Horticulture Research Division of
NARC	National Agriculture Research Council
HICAST	Himalayan Collage of Agriculture Science and Technology
HRD	Human Resources Development
HS	Harmonized Commodity Description and Coding System
IAAS	Institute of Agriculture and Animal Sciences of Tribhuvan University (TU)
ITC	International Trade Centre, UNCTAD/ WTO, Geneva
JT	Junior Technician
JTA	Junior Technical Assistant
Kg	Kilogram
M.	Million
MoAD	Ministry of Agricultural Development
MoF	Ministry of Finance
MoCS	Ministry of Commerce and Supplies
MoI	Ministry of Industries
MT	Metric Ton
NAP	National Agriculture Policy 2054
NARC	National Agricultural Research Council
NGO	Non Governmental Organization
NPC	National Planning Commission
NRB	Nepal Rastra Bank
NTB	Non-tariffs Barriers
NTIS	Nepal Trade Integrated Strategy
PQIC	Plant Quarantine Inspection Certificate
PQP	Plant Quarantine Program of DoA
Qty.	Quantity
R & D	Research and Development
SMEs	Small and Medium-sized Enterprises
SPS	Sanitary and phyto-sanitary measures
TA	Technical Assistance
TBT	Technical Barriers to Trade
TEPC	Trade and Export Promotion Centre
TRTA	Trade Related Technical Assistance
US	United States of America
VAT	Value Added Tax
WTO	World Trade Organization

Executive Summary

1) This study was conducted to assess the status and potentialities of floriculture sub-sector and recommend government to prioritize this sub-sector in the trade policy and strategy. It also focuses on identifying practical strategic measures that support in government's policy and strategy formulation process; and on assisting entrepreneurs in developing their production and marketing strategies.

2) Seasonal flower plants, cut flowers and foliage, ornamental plants, landscape and gardening, floral arrangements, specific decorations, input supplies, and foreign trades are among important business areas. Floriculture business concentrated in Kathmandu Valley for the past many years. However, currently the business is expanding in Pokhara, Narayangad, Hetauda, Biratnagar, Dharan and Dhangadi. There are 650 floriculture entrepreneurs in Nepal and farmers/firms are working with 141 hectares of land across 38 districts. In 2014 total investment is estimated at Rs. 4.75 billion and more than 41,000 persons are directly or indirectly involved in this sub-sector. The business grew by many folds in the last two decades. In 2013/14 total turnover has crossed the tune of Rs. 1.34 Billion as against Rs. 18 million in 1993/94.

3) Demand grows particularly during special occasions like festivals, religious days, special events/ceremonies such as wedding, birth-days, welcome, farewell, mourning, etc. A blooming trend of presenting flowers as gift has been noticed particularly during wedding and other receptions. Annual domestic market volume is estimated at Rs.1.34 billion. In an average, domestic market is growing annually between 10 to 15 per cent. Growth in Nepal's exports of floriculture products to foreign countries is not encouraging. Export decreased from Rs. 21 million in 2009/10 to Rs.8.4 million in 2013/14. However, imports of floriculture products grew spontaneously from Rs. 9.2 million in 2009/10 to Rs.82.1 million in 2013/14.

4) Floriculture products marketed globally are (a) bulbs, tubers, and roots; (b) plants and cuttings; (c) cut flowers; and (d) foliages. In 2014 total world imports of these products recorded at 6.5 million tons that was valued at US$ 18.3 Billion. Imports grew annually by 3 to 11 percent in terms of quantity during the period 2010 and 2014. The major importers in the world market are USA, Germany, Netherlands, UK, France, Japan, Belgium, Italy, Switzerland, Austria, China PR, Canada, etc. The major world exporters are Netherlands, Germany, Italy, Belgium, Denmark, China PR, France, Kenya, New Zealand, USA, Ecuador, Spain, etc.

5) Estimated annual world consumption of flowers was US$ 40-60 billion in 2003. There is a high degree of market concentration by products and sources and recently international competition particularly in cut flower is increasing. The Netherlands is the dominant central market for cut flowers and other products but its share is gradually decreasing from 58 % in 2003 to 52% in 2014. Major low cost producing and exporting countries are Kenya, Ecuador, Ethiopia, Colombia, Malaysia, Brazil, China, India, Mexico, Israel and Turkey. Exports of such countries grew by 24% in 2012 as against the value of 2010.

6) World consumers' spending on floricultural products has not increased in the past five years. There are moving to low-value end markets. Major traditional markets (USA, Western Europe and Japan) are stagnated. Future outlook is bright but will increase steadily and in countries with income growth the consumption will grow strongly. High cost low volume producers have to focus on exotic items and niche markets. Success in business is likely to come mainly with the development of long-term partnership in the supply chain that can control risks of availability, prices and quality.

7) There is a sufficient background for the future growth prospect of the floriculture sub-sector as a number of actors and service providers including support institutions are actively participating along its value chain development process.

8) Despite high potential of the sector, there are various issues and challenges that need to address for achieving the highest potential of the sector. Some of such issues and challenges are related to deficiency

in policy and institutional mechanisms, private sector weaknesses, short comings in value chain development and poor marketing mechanism.

9) Policy measures that mostly Government of Nepal could take include:

   a. Effective implementation of Action (work) plans of the Floriculture promotion Policy 2012 with appropriate Monitoring and Evaluation framework.
   b. Prioritize floriculture sub-sector in Agriculture Development Strategy in view of value chain development and market prospects abroad.
   c. Establish a functional Floriculture Development Center with adequate technicians for regular training and guidance to farmers and product developer
   d. Strengthening the NARC in the areas of variety development and Nepali product differentiation. NARC may initiate research program for development of floriculture sector
   e. Disseminating information about the potential of floriculture at wider level
   f. Incorporating this sub-sector as a part of Nepal Trade Integration Strategy (NTIS) in view of substantial value addition and export market prospects.
   g. Subsidized credit and other facilities to be provided.
   h. Collection center, common facility center, and cold storages (warehouse) at least at district level in public private partnership modality needs to be supported.
   i. VAT and Tax exemptions on earning from floriculture sector should be extended.
   j. Tariff facility for import of inputs of floriculture products should be ensured.

10) Policy measures to be taken by the private sector are:

   a. Collective branding, packaging and collective trade mark facilities
   b. Transparent supply chain process to be ensured.
   c. Expanding nurseries to meet growing demand and encouraging private sectors to invest in nurseries by providing required technical support and credit facilities
   d. Organizing farmers/nursery operators into cooperatives for better approach to farming, enhancing scale, strengthening their capability to interact with traders and also for better marketing
   e. Buy back guarantee from big business houses with minimum assured price to the farmers.
   f. Opening floriculture sales outlets in potential markets

11) Major initiatives to be taken for value chain development are:

   a. Development and dissemination of manual of the entire production process
   b. Provide trainings in different subjects and sub-sectors
   c. Provide training on post-harvesting, packaging, labeling and storing
   d. Subsidize seeds and nursery plants to farmers
   e. Collection and warehouse in major hubs

12) Marketing should be supported by:

   a. Collective branding and trade marking
   b. Identifying potential markets, especially focusing on neighboring countries
   c. Conducting promotional activities in major destination markets
   d. Conducting research and study to identify consumers preferences in niche markets

e. Conducting research to identify exotic spices available in Nepal and explore market

f. Utilizing Nepalese mission abroad in major export destination markets

13) Institutional and infrastructural measures are:

a. Enhance capacity of Floriculture Association Nepal towards developing value chain development project, policy advocacy and sector promotion activities.

b. Human resources development through necessary training and exposures to members.

c. Persuade to develop road connectivity necessary for the value chain development.

d. The Floriculture Business Development Coordination Committee as envisaged under the Floriculture Promotion Policy 2012 should be functional, meet frequently, and play an active role for promotion and development of the sector

e. Persuade government to allocate adequate land to lease for nursery development/floriculture business in each municipality, especially in newly developed municipality and proposed model cities in different areas of the country

14) This sub-sector has a broad base for socio-economic development, where it provides about 41,000 employment opportunities. More importantly, this sub-sector has prospects of transferring income from a group of rich classes and institutions to low income group and thereby play a crucial role in poverty reduction. The sector has high potential for export in future and also meets most of the criteria of entering into new NTIS. In view of the findings and analysis, the floriculture sub-sector should also be incorporated in agriculture policy and ADS explicitly in order to exploit the sector with its full potential. It is a right time to make enough advocacies about the sector and make all stakeholders and concerned agencies aware of the future potential of the floriculture sector.

1. Background

The floriculture sub-sector holds a great business potential in Nepal. Traditional floriculture trade has turned to a modern lucrative business as of early Nineties. And since then, rising demands in domestic and foreign markets offered confident among the entrepreneurs resulting more eagerness and spontaneous investment in this sector. Nonetheless, strengthening competitiveness of this sub-sector is constrained by some factors that are internal, within the control of entrepreneurs and external, those are not under their control. While entrepreneurs are yet to develop their risk taking capacity and develop production base with adequate investment, they are supported partly by policy package, quality inputs, institutional credits, effective extension services, and institutional and infrastructural facilities. Domestic market is growing interestingly while they are constrained by gradual introduction of complicated market access conditions in the foreign markets. There is an urgent need for the adequate production process and technology development to meet regulatory compliances of such markets.

The Government of Nepal is yet to consider including the floriculture sub-sector into the priority item of Agriculture Plan, Policy and Strategy; Trade Policy; and the Nepal Trade Integrated Strategy (NTIS). Against this backdrop, a need was felt to conduct a study to develop understanding on how ongoing changes in factors are affecting Nepal's competitive position of floriculture sub-sector; to identify practical strategic measures; to support in government's policy and strategy formulation process; and also to assist entrepreneurs in developing their production and marketing strategies. This study is undertaken by Floriculture Association Nepal (FAN) with the financial support of the Ministry of Agricultural Development (MoAD).

Objective: The immediate objective of the study is to assess the status and potentialities of floriculture sub-sector and recommend government to prioritize this sub-sector in the trade policy and strategy including Nepal Trade Integration Strategy (NTIS). The study also focuses on the updating of information on floricultural products for the benefits of policy makers, entrepreneurs and other stakeholders.

Coverage: The issues examined by this study include:

- Review of the existing supply capability and analysis of strengths (S) and weakness (W) of the entrepreneurs and opportunities (O) and threats (T) of the markets;
- Analysis of domestic environment and domestic and international market prospects;
- Analysis of prospects of value chain development and measures requiring addressing some of the critical issues and;
- Presentation of recommendations to the stakeholders including government agencies and entrepreneurs to achieve further development in floriculture sub-sector in Nepal.

Rationale: Floriculture is a pro-poor sub-sector involving low-income groups in farming and marketing, with the prospect of marketing high value exotic varieties items to overseas and possibility of high value addition with the availability of land, labour and suitable climatic and topographical conditions. Additionally, the global market trends present a growing demand and growth in domestic market is highly enthusiastic.

In spite of high expectation of the entrepreneurs, overseas exports of cut flowers, bulbs, live plants, and foliage were realized sporadically in a small scale only since past two decades. In view of the prospects for value chain development as well as growing markets, the stakeholders have overwhelmingly realized the possible contribution of the floriculture sub-sector to the national economy in terms of increased income and employment. This sub-sector has wonderful prospect of transferring income from a group of rich classes and institutions to low income groups and thereby playing a crucial role in poverty reduction and economic growth. Therefore, the FAN attempts through this study findings to request the Government of Nepal to give thrust to a further growth of the floriculture sub-sector and demands prioritizing this sub-sector in national programs.

Methodology: Both desk study and field research were conducted to generate qualitative and quantitative information. Qualitative information was obtained during the field visits and discussion with the growers, traders, government officials and other stakeholders. Similarly, quantitative information is based more on analysis and review of numerous data sources, reports and studies, which have been classified and analyzed as required for the report.

In process of preparation of this document, a draft was submitted to the stakeholders including entrepreneurs and exporters for their comments and suggestions. Finally the draft was finalized incorporating all comments and suggestions and the additional inputs received.

2. Current Status

2.1 Recent Business Development

Seasonal flower plants, cut flowers, ornamental plants, landscape and gardening, and floral arrangements and decorations are among important business areas currently practiced within the floriculture sub-sector in Nepal. Over the past three decades, production pattern is changing according to consumers demand and behaviors, demonstration effects and global market scenarios. Since early Nineties, cut flower production system flourished, especially with gladiolus and roses. Currently, more than 50 cut flowers, about 100 varieties of ornamental plants and their thousands of cultivars are commercially available in Nepalese markets.

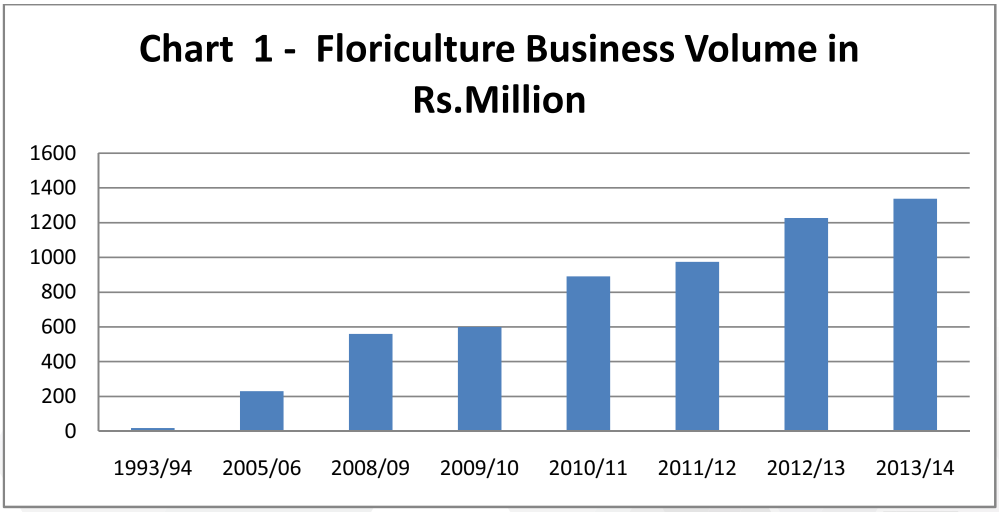
The private sector made the first move for the gradual and modern development of floriculture business since last 25 years in Nepal. With the growth of urbanization Kathmandu Valley remained the main centre of its business for many years. Currently the business is steadily expanding in other markets like, Biratnagar, Dharan, Janakpur, Hetauda, Narayangad, Pokhara Butawal, Bhairahawa, Nepalganj, Surkhet, and Dhangadi. Altogether 650 floriculture entrepreneurs and farmers/firms are working with 141 hectares of land across 38 districts in Nepal. Coming to year 2014, total investment in this sub-sector has reached to the tune of Rs. 4.75 billion. More than 41,000 persons are directly and indirectly dependent on the floriculture sub-sector. In 1993/94, total recorded turnover was Rs. 18 million. The business grew by many folds in the last two decades (Annex 1 and 2). Now, it is estimated that the total turnover has crossed the tune of Rs. 1.34 Billion in 2013/14 (Table 1 and Chart 1). Ongoing floriculture business areas in Nepal are categorized as follows:

- Seasonal flower plants and seeds
- Ornamental plants and plantlets
- Cut-flowers
- Landscape and gardening
- Loose flowers and garlands
- Inputs supplies
- Carpet grass, bulbs, rhizomes, tubers and tissue culture plantlets
- Export and imports

Table - 1: Business Growth of Floriculture Products

1993/94 to 2013/14					Value in Rs. Million				
SN	Descriptions	1993/94	2005/06		2009/10	2010/11	2011/12	2012/13	2013/14
1	Seasonal flower plants and seeds	3	25	60	65	105	165.6	195.4	216.8
2	Ornamental plants	2.6	100	160	260	350	320	371.5	381.5
3	Cut flowers and foliage	2.2	20	135	172	150.7	160	184.2	204.5
4	Landscaping and gardening		25	50	58	63.8	120	144.5	170.4
5	Loose flowers	3.2	20				45	60.4	67
6	Input supplies (Silpouline, materials and equipments)		20				75	93.2	124
7	Others (carpet grass, bulbs, rhizomes, tuber, tissue culture plantlets, etc.)	7	20	60	14	19	58	75	83.3
8	Exports			60	21	191.4	13.3	11.4	8.5
9	Imports			35	9.2	11.5	17.6	91.4	82.1
	Total Business	18	230	560	599.2	891.4	974.5	1227.0	1338.1

Source: Floriculture Association Nepal (FAN), Kathmandu.



2.2 Commercially Viable Sub-sector

Nepal has more than 6500 species of flower and ornamental plants and 380 species of orchid plants across the country . Out of those plants National Botanical Garden (NBG) is currently developing 118 spices of general ornamental plants and 27 native ornamental plants . Some of the commercially grown seasonal flowers, ornamental plants, cut flowers, shrubs, bulbs, and foliage available in Nepal are described below:

i. Seasonal flowers: Marigold, Zinnia, Dahlia, Petunia, Pansy, Verbena, Antirrhinum, Calceolaria, Cineraria, Celosia, Renuncolus, Salvia, Dianthus and Calendula. (Annex 3)
ii. Perennial flowering Plants: Poinsettia, Azalea, Gerbera, Carnation (Pot varieties), Orchid, Geranium, Hydrangea , Camellia etc.
iii. Ornamental Plants (Non Flowering): This category includes Cycas, Tupidianthus, Phoenix, Palm Varieties, Nolina, Phylodron, Dracaena, Thuja varieties, Ficus (Ficus species), Arecuria cookie and similar other plants.
iv. Shrubs and Climbers: Under this category falls Rose, Bougainvillea, Bleeding Heart, Begonia, Venista, Gardenia (Indrakamal), Nirjai, camellia, Hibiscus, Azalea and Jasmine varieties.
v. Cut-flowers: Gladiolus, Roses, Carnations, Gerbera, Tuberose, Cymbidium Orchid, Chrysanthemum, Aster, Lily, Anthurium, Bird of Paradise, tulips, Gypshophilla, Lemonium, etc.
vi. Bulbs: Gladiolus, Gloriosia spp., Zephyranthus, Haemanthus Multiflora (football lilly), Polyanthus (Rosani), Lycoris aurea, Eucharis grandiflora (Amazanlily), Achimenes, Kukurma, Calladium, Amaryllis Hippeastrum, Freesia spp., Lycoris lily, etc.
vii. Foliage: Asparagus, ferns, Nephrolepis, Cordifolia, Pulmosus, Junipers, Thuja, etc.

2.3 Trades of Floriculture Sub-sector

Exports

Growth in Nepal's exports of floriculture products to foreign countries is not encouraging. In the past, Nepal mostly exported bulbs, live plants, cut flowers and foliage. However, exports of all of these items are very much unstable and gradually decreasing in the past five years. In 2009/10, total export recorded at Rs. 20.9 million and next year in 2010/11, export value reached to Rs. 191.2 million. This increase was due to the fact that export to China PR unexpectedly grew to Rs.177.6 million. It was reported that Tibetan imported these products during a special occasion for decorative purposes. The export values again came down to Rs. 13.3, Rs.11.4 and Rs.8.4 millions during the subsequent years 2011/12, 2012/13 and 2013/14 respectively (Table 2). Details of exports with major destinations, quantities and values are presented in Table 3. This table shows that India, USA, Netherlands, Germany, Denmark, UK, China PR, Japan, Thailand, UAE, Qatar, etc. are the major markets for Nepali products. These markets also hold future prospects.

Table - 2 Exports of Floriculture Products from Nepal - Value in Rs. '000

Product Descriptions		2009/10		2010/11		2011/12		2012/13		2013/14	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
HS 0601 Bulbs, tubers, tuberous roots, etc.	Pcs.	91713	6356	64860	4649	79700	5510	77551	7380	68477	6971
HS 0602 Live plants, cuttings and slips	Pcs.	325054	8277	268630	186556	183633	7106	140575	3730	201515	1064
HS 0603 Cut flowers, flower buds, etc.	Kg.	50829	5688	5760	76	15831	137	23586	237	6310	269
HS 0604 Foliage, branches, etc.	Kg.	6585	653	0	0	3250	573	165000	60	2104	149
Total exports			20,974		191,281		13,326		11,407		8,453

Source: Trade and Export Promotion Centre, Nepal Foreign Trade Statistics.

Table - 3 Exports of Floriculture Products - Destinations- Value in NRs

HS 0601 Bulbs, tubers, tuberous roots, etc.	Unit	2009/10		2010/11		2011/12		2012/13		2013/14	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
USA	Pcs	74,513	3,558,469	36,020	1,683,807	29,200	1,859,327	58100	3626684	39,050	2,188,332
Germany	Pcs	15000	2686534	8,450	2,358,741	12,200	2,423,847	13450	3541506	18,427	4,489,862
Qatar	Pcs	2,200	11,319								
Netherlands	Pcs			19,500	583,274	9,300	322,079			11,000	293,227
Hong Kong	Pcs			493	12,973						
Japan	Pcs			350	5,292	29,000	905,010	6,000	201,025		
Qatar	Pcs			47	4,749						
India								1	10,400		
Total	Pcs	91,713	6,256,322	64,860	4,648,836	79,700	5,510,263	77,551	7,379,615	68,477	6,971,421
HS 0602 Live plants, cuttings and slips		2009/10	2010/11	2011/12	2012/13	2013/14					
Korea R	Pcs	150	10,408								
India	Pcs	154,000	6,087,500	113,630	4,259,679	119603	4514901	140,575	3,730,223	201515	1064000
Denmark	Pcs	35,900	526,836								

Germany	Pcs	5,600	90,842	13,000	3,218,963	14,850	2,590,620				
Netherlands	Pcs	117,800	1,518,391								
Qatar	Pcs	3,604	21,557								
UAE	Pcs	8,000	21,650								
China P. R.	Pcs			100,000	177,625,000						
USA	Pcs			42,000	1,452,159	49180	2285627				
Total		325,054	8,277,184	268,630	186,555,801	183,633	7,105,521	140,575	3,730,223	201,515	1,064,000
HS 0603 Cut flowers, flower buds, etc.		2009/10	2010/11	2011/12	2012/13	2013/14					
Japan	Kg.	48,962	4,483,570								
Qatar	Kg.	975	119,205	5750	70,681	15236	125,180				
U.S.A.	Kg.	23	20,530	10	5,100						
Germany	Kg.	700	1,033,202								
U.K.	Kg.	44	16,661			595	11,450	7,742	57,181		
Hong kong	Kg.	125	14,709								
India	Kg.			600	30,000			15834	47,912	6300	76750
France								10	131,567	10	192,240
Total		50,829	5,687,877	6,360	105,781	15,831	136,630	3,586	236,660	6,310	268,990
HS 0604 Foliage, branches, etc.		2009/10	2010/11	2011/12	2012/13	2013/14					
Thailand	Kg.	1,585	175,722			250	541,688				
Germany	Kg.	5,000	477,501								
India	Kg.					3,000	31,000	165,000	60,000	1,900	28,218
UK	Kg.									204	120,663
Total		6,585	653,223	-	-	3,250	572,688	165,000	60,000	2,104	148,881

Source: Trade and Export Promotion Centre, Nepal Foreign Trade Statistics.

Imports

In the last five years Nepal's imports of floriculture products grew spontaneously from Rs. 9.2 million in 2009/10 to Rs.91.4 million in 2012/13 (Table 4) with a slight decrease in the year 2013/14. According to the Trade and Export Promotion Centre (TEPC) imports for these products further recorded at Rs. 82.14 million in the fiscal year 2013/14. Such a growth in imports is due to the increase in demand for a variety of floriculture products in domestic market. Major exporters to Nepal are India, Netherlands, China PR, Thailand, Spain, USA, etc. Details of imports with sources, quantities and values are presented in Table 5.

Table – 4 Imports of Floriculture Products into Nepal - Value in Rs. '000

Product Descriptions	2009/10	2010/11	2011/12	2012/13	2013/14
HS 0601 Bulbs, tubers, tuberous roots, etc.	2,479	3,796	1,795	12,123	758
HS 0602 Live plants, cuttings and slips	5,811	5,828	12,077	20,117	76,448
HS 0603 Cut flowers, flower buds, etc.	537	637	3,513	58,231	4,412
HS 0604 Foliage, branches, etc.	403	1,280	199	977	522
Total Imports	9,230	11,541	17,584	91,448	82,140

Source: Trade and Export Promotion Centre, Nepal Foreign Trade Statistics.

Table – 5 Nepal Import of Floriculture Products & Sources - Value in Rs

HS 0601 Bulbs, tubers, tuberous roots, etc.	2009/10	2010/11	2011/12	2012/13	2013/14
India	328,496	3,334,392	892,962	11,447,964	757,768
Netherlands	2,004,940	202,154	901,551	675,149	-
Thailand	83,162	-	-	-	-
UK	62,519	-	-	-	-
Japan	-	114,419	-	-	-
New Zealand	-	144,719	-	-	-
Hong Kong	-	-	643	-	-
Total	2,479,117	3,795,684	1,795,156	12,123,113	757,768
HS 0602 Live plants, cuttings and slips					
India	4,178,519	4,826,456	8,745,131	13,521,618	68,724,248
Thailand	1,526,649	176,051	142,701	-	-
China P.R.	53,975	-	1,321,587	468,884	-
Canada	32,617	-	-	-	-
Netherlands	19,513	-	733,816	1,189,080	770,334
Malaysia	-	30,500	-	-	-
Belgium	-	79,478	-	-	-
Spain	-	715,972	174,110	2,356,712	-
U K	-	-	326,245	-	-
USA	-	-	633,208	2,273,133	4,702,145
Israel	-	-	-	307,122	
Ukraine	-	-	-	-	4,501
Kenya	-	-	-	-	22,837

Finland	-	-	-	-	2,072,757
Italy	-	-	-	-	152,006
Total	5,811,273	5,828,457	12,076,798	20,116,549	76,448,828
HS 0603 Cut flowers, flower buds, etc.					
India	469,918	498,223	3,063,091	57,786,258	3,953,727
Thailand	67,310	138,836	-	77,719	392,618
China P.R.	-	-	7,812	-	-
Namibia	-	-	441,909	-	-
Israel	-	-	-	140,379	-
Netherlands	-	-	-	226,925	26,693
Kenya	-	-	-	-	8,292
Colombia	-	-	-	-	29,436
Australia	-	-	-	-	1,659
Total	537,228	637,059	3,512,812	58,231,281	4,412,425
HS 0604 Foliage, branches, etc.					
India	401,620	1,280,068	198,621	976,801	521,603
China P.R.	847	-	-	-	-
Korea R.	673	-	-	-	-
Total	403,140	1,280,068	198,621	976,801	521,603

Source: Trade and Export Promotion Centre, Nepal Foreign Trade Statistics.

2.4 Domestic Market

Annual domestic market volume is estimated at Rs.1.3 billion. In an average domestic market is growing between 10 to 15 per cent annually. About 20% of cut flowers, 60 % of ornamental plants and 90% of seeds demands are met through imports. The consumption trends of cut flowers for the last two years by the type of clients show a flourishing business (Table 6). Demand grows particularly during special occasions such as festivals, religious days, special events/ceremonies such as wedding, birth-days, welcome, farewell, mourning, etc. Blooming trend has been noticed during wedding receptions. A new culture has evolved to accept flowers positively as gifts, which has become a part of fashion also. The consumption pattern and market demands present an encouraging sign for the growers and entrepreneurs.

Table - 6 Consumption Trends of Cut Flowers in Kathmandu Valley (in order of volume)

SN	Market Segments	Trends for the last 2 years
1	Wedding Ceremonies	Highly increasing
2	Hotels, travel and tourism industries	Highly increasing
3	Birth, Death and other personal programs	Very good and increasing
4	Welcome, farewell and similar ceremonies	Very goods and increasing
5	Foreign diplomatic missions	Moderately increasing
6	Office and Official functions	Moderately increasing
7	Special occasion: traditional and religious	Moderately increasing

Source: Interviews with the Selected Retailers

When average retail price for the cut flowers was analyzed no distinct change was found for the last two years. Prices remained almost constant (Table 7). Entrepreneurs are benefiting by increasing business volume rather than the price. This is definitely going to attract interest of more consumers as well as growers.

Table - 7 Average Retail Prices of Selected Cut Flowers – Rs./stick

Cut Flowers	2014	2015	Cut Flowers	2014	2015
Gladiolus	15	15	Tuberose	15	15
Dutch Rose	25	25	Marigold	25-100	25-100
Carnation	25	25	Cymbidium Orchids	>200	>200
Gerberas	20-25	20-25	Lilium	>250	>250
Chrysanthemum	15-25	25-40	Aster or Anthurium	10-15	10-15

Source: Interviews with the Selected Retailers

3. World Market Scenarios

The main groups of floriculture products marketed globally are (a) bulbs, tubers, roots, etc.; (b) plants, cuttings, etc.; (c) cut flowers; and (d) foliages. In 2014 total imports of these products recorded at 6.5 million tons that was valued at US$ 18.3 Billion (Table 8). Imports of these items grew annually by 3 to 11 percent in terms of quantity during the period 2010 and 2014. During the same period imports in value terms grew by 1 to 2 per cent except for foliage. Therefore, the world market is passing through very high competition in terms of price. Imports of foliage in the world market are decreasing annually by one per cent during this period. The major importers in the world market are USA, Germany, Netherlands, UK, France, Japan, Belgium, Italy, Switzerland, Austria, China PR, Canada, etc. For detailed world's comparative import figures from 2010 to 2014 please refer Annex 4.

Table - 8 World Imports of Floriculture Products in 2014

HS	Product Descriptions	Value in US $ Million	Qty in 000 Tons	Growth Rates in Value between 2010-14	Growth Rates in Qty between 2010-14	Major Importers and their Shares in %
060110	Bulbs, tuber, roots, etc.	1069	2263	1	3	USA 15, Germany 8.5, China 7.8, Japan 6.8, UK 6.3, Netherlands 4.9, France 4.2, Canada 4.1
0602	Plants, cuttings, etc.	7642	2629	1	8	Germany 19.2, France 8.7, Netherlands 7.4, UK 6.5, USA 5.8, Italy 3.9, Austria 3.7, Belgium 3.7
0603	Cut flowers, etc.	8417	1200	2	8	Germany 15.3, USA 14.5, UK 13.5, Netherlands 11.1, R.Federation 7.2, France 5.3, Japan 4.2
0604	Foliage, etc.	1166	399	-1	11	Netherlands 21.7, Germany 15.4, USA 11.2, Japan 6.3, France 5.3, UK 5.2, Switzerland 3.4, Belgium 3.3
	Total	**18294**	**6491**			

Source: Trade Map of International Trade Centre, Geneva

In 2014, exports of selected floriculture products in the global market recorded lower than total import that was US$14.2 billion. Exports of bulbs and foliage did not grow in quantity as well as value terms. But the exports of plants, cuttings and cut flower grew by 2 to 4 per cent (Table 9). The major world exporters are Netherlands, Germany, Italy, Belgium, Denmark, China PR, France, Kenya, New Zealand, USA, Ecuador, Spain, etc. For detailed world's comparative export figures from 2010 to 2014 please refer Annex 5.

Table - 9 World Exports of Floriculture Products in 2014

HS	Product Descriptions	Value in US $ Million	Qty in 000 Tons	Growth Rates in Value between 2010-14	Growth Rates in Qty between 2010-14	Major Exporters and their Shares in %
060110	Bulbs, tuber, roots, etc.	1096	299	-1	-1	Netherlands 81.1, New Zealand 2.9, Chile 2.8, Germany 1.9, USA 1.7, France 1.5
0602	Plants, cuttings, etc.	8218	1248	2	4	Netherlands 40.1, Germany 9.8, Italy 8.1, Belgium 6.4, Denmark 4.6, Spain 4.1 China 3.3
0603	Cut flowers, etc.	3766	573	2	2	Netherlands 44.9, Colombia 16.4, Ecuador 5.9, Kenya 8.3, Belgium 3.4,
0604	Foliage, etc.	1149	370	-3	-3	Netherlands 20.3, Denmark 15.6, USA 9.6, Italy 7.9, Belgium 5.5, Germany 4.4, China 4.1
	Total	14229	2490			

Source: Trade Map of International Trade Centre, Geneva

World Market Trends: The International Trade Centre (ITC), Rabo bank Nederland, and Flora Holland in their different publications have illustrated the following recent trends of floriculture products in the global markets :

- Market Concentration: According to ITC, there is a high degree of market concentration by products and sources in developed countries of America, Europe and Asia accounting for 90 % of global demand. Trade is being organized along the regional lines, for example, Asia and Pacific suppliers are focusing at Japan and Hong Kong; African, Middle Eastern and European countries are the principal suppliers to European markets; and Colombia and Ecuador dominate the US market. High cost low volume producing countries have to focus on exotic and niche markets.
- Global Competition: One of the most important structural changes in the world floriculture market is increase in international competition, particularly in cut flower. The Netherlands is the

dominant central market for cut flowers and other products, but its share is gradually decreasing from 58 % in 2003 to 52% in 2014 . The low cost producing and exporting countries closed to Equator, such as Kenya, Ecuador, Ethiopia, Colombia, and Malaysia, have increased their global market share in cut flower trade. Exports from such developing countries grew by 24% in 2012 as against the value of 2010 . Additionally, local cultivation of flowers and plants in growing markets such as Brazil, China, India, Mexico, Israel and Turkey is increasing. These cost efficient producers are strengthening their positions in the global production and trade, mainly driven by favorable growing circumstances, rising demand for competitively priced flowers in the main destination markets and improved logistics, including transportation by sea containers. High costs producers have to differentiate themselves from the low cost competitors.

- Global Consumption: Estimates of the annual consumption of commercially grown flowers worldwide vary by source and range from US$ 40 - 60 billion . While worldwide consumption has been on the rise, consumers have also become more refined in demanding new products. To meet this growing and changing demand, production has continued to move from countries that have traditionally been consumers and growers (Holland) to other relatively new producing countries.
- Consumer's Behaviors: Consumers' spending on floricultural products has virtually not increased for the past five years. They are moving to low-value end markets like super markets, discounters, DIY suppliers or chain stores, etc.
- Market Stagnation: In the traditional market (USA, Japan and Western Europe), growth in the floriculture spending has come to a standstill mainly due to economic circumstances and disposable income factor.
- Container Transport: Transportation of floriculture products has become a major and unstoppable development and has already become fairly a substantial in a number of trade flows. It is driven by number of factors including price difference between sea and air freight, growing availability of port facilities and growing knowledge on sustainability issues.
- Future Outlook: It is expected that the growth in production and trade of floriculture products will continue but steadily in the next decade. In the countries with income growth the consumption will grow strongly.
- Long-term Partnership: Success in business comes only with the long-term partnership in the supply chain as the growers, traders and transporters can control risks of availability, prices, quality, etc. Dedicated floriculture products supply chains will require so called "facilitator" (distributor, marketer, exporter, and importer) to make their value chain work smoothly to match supply (producers) and demand (retailers/consumers) smoothly, handle quality control, bulk breaking efficiently, providing advices and inform timely moves, etc. The traditional model of "intermediaries" is out dated or outmoded.

4. Prospects for Value Chain Development (VCD)

The value chain charts out the actors logically who actually enter into transactions of a particular product or service as it moves through the value chain that include input (e.g. seed, equipment) suppliers, farmers, traders, processors, transporters, wholesalers, retailers, final consumers, supporting institutions, and disposers. In general the chain seems arithmetic (scientific) but, it is more artistic as well, as human plays a maximum role in this approach.

Key Actors and Elements of the Value Chain on Floriculture

A number of actors and service providers are involved in the value chain process of floriculture sub-sector. Roles of some of the important actors and supporting institutions are discussed below:

4.1 Input suppliers/manufacturers: Majority of these are the private profit oriented entities and registered with the concerned government institutions. Major input suppliers are the firms/companies importing or producing and supplying fertilizer, plantlets, insecticides / pesticides, tools and equipment to the farmers, nurseries, etc. Most of these input suppliers are located in the cities and district headquarters. The input suppliers are not capable in promotion of their products and services and as result leading to high costs.

Seeds, planting materials, greenhouse and plastic (UV) are among the most important inputs that are imported mainly from India, Holland, Spain, and Japan. Besides these, tools and equipment are imported from China, Taiwan, Malaysia and Germany. There are many well established private suppliers involved in imports of the planting materials, equipment, tools, fertilizers and pesticides. (Annex – 4) Some of such suppliers are:

a) **Seeds:**
   - i) Crop Protech Nepal
   - ii) Kumari Flora Firm
   - iii) Jai Kishan Seed Centre
   - iv) Karma and Sons Traders
   - v) Annapurna Beej Bhandar

b) **Planting Materials for cut flowers, Perennial/Ornamentals, and Bulbs and Tubers:**
   - i) Floriculture Cooperative
   - ii) Crop Protech Nepal
   - iii) Kumari Flora Farm
   - iv) Siam floritech
   - v) Direct by Growers and Nurseries
   - vi) Representatives of Indian companies
   - vii) India Hawkers

c) **Tools and Equipments: All agriculture input suppliers and Agro-vet/agro shops**

d) **Fertilizers/Insecticide/Fungicide: All agro chemical suppliers and Agriculture Inputs** Company **Ltd.**

e) **Green Houses and Plastic (UV) and Agro net:**
   - i) Abloom Flora Farm
   - ii) Floriculture Cooperative
   - iii) Crop Protech Nepal
   - iv) Maha Agriculture
   - v) Shalom Agriculture
   - vi) Sagar Plastics
   - vii) Dahal Trading Concern
   - viii) Direct Suppliers from India (Agri-plast India, ESSAN Multi-pack, Pink Vision India etc.)

4.2 Farmers/producers and firms: Farmers and firms are scattered over different districts in the midst of suitable agro-climatic conditions are considered the primary building blocks for the floriculture products. They do have land resources and can expand the area for floriculture products. Currently about 141 hectors of land has been used for this sub-sector. Farmers themselves share labour or mobilize locally available labours needed for production. The farmers are involved in collecting inputs, planting, farming/growing and harvesting, initial processing, etc. Out of 650 floriculture entrepreneurs there are 86 floriculture farmers and producing firms with commercial production and marketing facilities in Nepal. Forty of them have continued production and supply systems for more than 8 months in a year.

Majority of farmers have poor educational, technological, and entrepreneurship background to comprehend the importance of value adding activities and in analyzing costs and benefits. In most cases farmers are reluctant to increase their investment in this sub-sector due to production uncertainty, possible fluctuation in market price, lack of a proper coordinating institution and effective market network. On the other hand farmers are thinly distributed or scattered and are not technically supported with adequate research, improved seeds, integrated pest management, nutrients and organic fertilizers, irrigation techniques, etc. Moreover, farmers are not well informed on the right quality and preferences acceptable at higher prices in the market abroad. Similarly, they lack adequate export incentives and subsidized credit facilities to upscale the production.

4.3 Retailers and Wholesalers: Farmers, producers or firms are supplying their products to retailers and wholesalers. Many retailers and wholesalers have established linkages with the producers and are playing important roles in collection and supply to the individual and institutional consumers. There are 65 flowers, plants and foliage shops in Kathmandu Valley, 5 in Pokhara and 1 or 2 shops each in other main cities like Biragnagar, Janakpur, Birgunj, Bhairahawa, Nepalganj, and Dhangadi. Currently four wholesale markets are functioning in Kathmandu valley.

4.4 Business Chambers and Associations: Federation of Nepal Chamber of Commerce and Industry (FNCCI) is the apex body of the private sector business community. The FNCCI has separate wing supporting agriculture entrepreneurs called Agriculture Enterprise Centre (AEC). The AEC has initiated several floriculture related activities including organization of trade fairs in Kathmandu and other districts. Floriculture Association Nepal (FAN) is a main commodity association to lead floriculture sub-sector. The association was established in 1992 with the objective of creating a forum for representing collective interests of all entrepreneurs with a systematic approach for the overall development of floriculture sub-sector in Nepal. Since the beginning, the FAN is aggressively engaged in collecting, analyzing and dissemination of information; conducing training, workshop, survey and research and development; lobbying the government agencies for favorable policy decision making; and organizing promotional programs like trade shows, fairs, and exhibitions. At present FAN membership has reached to 531. Farmers, firms and companies engaged in production and input supplies, retailers, wholesalers, decorators, garden and landscaping consultants and developers associated with flower, cut flowers, plants, foliage, bulbs, etc. are eligible to membership of the FAN.

4.5 District Agriculture Development Office (DADO): District Agriculture Development Offices (DADOs) are directly contributing to floriculture development in Nepal at the district level. DADO's mandate is to provide technical advice and extension services about new technologies in crop production, protection and marketing services to the farmers including floriculture farmers. But their extension service is limited both in quality and outreach due to insufficient skilled human and financial resources.

4.6 Ministry of Agricultural Development and Agencies under it: The Ministry of Agricultural Development (MoAD) is the apex authority responsible for the floriculture development regarding policies, strategies, plan and programs at the government level. The MoAD for the first time launched the Floriculture Promotion Policy 2012. The Department of Agriculture under the MoAD is responsible for technology development and dissemination of information to the farmers. Floriculture Development Centre established in 2003 is responsible for supports to entrepreneurs in technical, information and piloting aspects of the floriculture sub-sector and it also provides all technical supports to DADOs in their floriculture related programs. The Directorate of Horticulture at Kirtipur serves as a link between the DoA and Floriculture Development Centre (FDC) at Godavari.

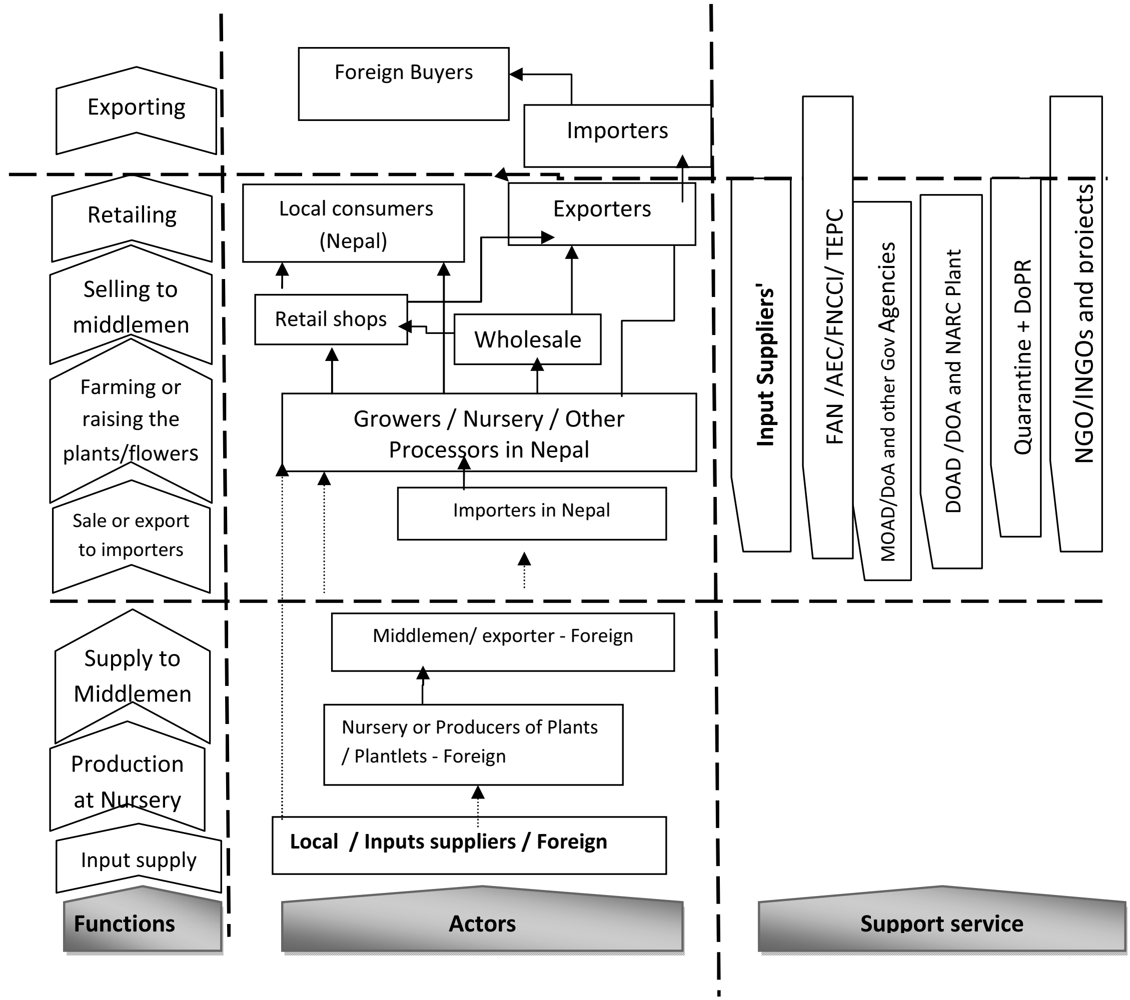
Agri-business Promotion Program of the MoAD is also directly involved in supporting promotional activities like exhibition, publications and information since 2006. Occasionally, it has provided financial and technical assistance in publications of business plans and in conducting special promotional events for floriculture products. The Horticulture Research Division (HRD) of Nepal Agriculture Research Council (NARC) conducts various researches on gladiolus, carnation, marigold, and cymbidium. Currently, research on gladiolus is going on in Dailekh district.

4.7 Other Government Agencies: Different government agencies are involved in this sub-sector. Ministry of Industry (MoI) facilitates business registration of entrepreneurs, Ministry of Commerce and Supplies (MoCS) facilitates export promotion, Trade and Export Promotion Centre (TEPC) serves entrepreneurs in promoting market and providing trade data, and Plant Quarantine Program and Department of Plant Resources provide services for development of plants and flowers and exhibition of chrysanthemum and also testing and certifying facilities.

Department of Plan Resources under the Ministry of Forest and Soil Conversation also conducts several research works on floriculture products. Some of the educational institutions are also conducting research on floriculture products. During 1990s, the Institute of Agriculture and Animal Science (IAAS) started conducting research on several crops like orchids, gladiolus, rose, gerbera, tuberose, marigold and carnation. Other institutions involved in such research works are Paklihawa Campus, Lamjung Campus, Agriculture College (Baitadi), Mahendra Ratna Campus (Illam) and Dang Agriculture College of the Tribhuvan University and Himalayan College of Agriculture Science and Technology (HICAST) Kathmandu) and Nepal Poly Tech (Bhaktapur) of Purbanchal University. Furthermore, Junior Technical Assistant (JTA) and Junior Technician (JT) courses in Horticulture are conducted in some of the technical schools across the country . The CTEVT has prepared three training courses in association with the FAN. These courses are conducted for the interested students and these include (i) garden designer, (ii) Florist and (iii) Nursery and Garden Assistant. The Curriculum Development Centre (CDC) is also preparing courses on floriculture education for classes 9 and 10.

The following chart reflects the entire value chain development process of floriculture sub-sector and actors and supporters involved in the process:

Chart 2. Floriculture Products – Value Chain Map



5. Critical Issues and Challenges

In spite of high potential of the sector, there are various issues and challenges that need to be addressed in order to achieve the highest potential of the sector. Based on the discussions with entrepreneurs and other stakeholders, major constraints and issues are highlighted as below:

Policy and Institutional

- Floriculture sub-sector has not been incorporated in the priority list of Government, neither in Agriculture Development Strategy (ADS) nor in Nepal Trade Integration Strategy (NTIS)
- Government institutional structures are inadequate and professional technical human resources are also insufficient for commercial development of floriculture sub-sector.

- Ineffective coordination mechanism among the government agencies for development of floriculture sub-sector.
- Lack of effective business enabling environment including assurance of policy implementation and institutional reform to attract additional investment in this sub-sector.
- Lack of proper compensation/price and incentive for farmers and entrepreneurs
- Favorable land use policy, especially in the area of potential geography of the country is lacking
- Lack of proper regulation and quarantine checking up at border points for restricting unhealthy plants and seeds especially from India.
- Effective implementation of Floriculture Promotion Policy 2012 with appropriate functional mechanism.

Value Chain Development

- Limited availability of modern technology and technical expertise in value chain development process
- Inadequate investment (by government and private sector) in R&D and physical infrastructure.
- Unavailability of appropriate type and quality inputs including suitable lands, irrigation facilities, fertilizers, insecticides, equipment, seeds, etc. Heavy dependency on foreign suppliers for major inputs, such as seeds, fertilizers, insecticides and pesticides.
- Low level of interest of financial institutions to invest in floriculture sub-sector

Private Sector

- Weak entrepreneurship and leadership development in the private sector institutions involved in floriculture sub-sector.
- Low capacity of entrepreneurs to cope with the industry's advancement as per the market need
- Entrepreneurs are oriented to investment in production side not on improvement of infrastructure and marketing. They need to be market preference oriented in terms of improvement in packaging, branding and presentation.

Marketing

- Beside good progress in recent years on the domestic front, it is still tough and challenging to become internationally competitive.
- Limited access to road and market of potential location for cultivation of high valued floriculture
- Inadequate quality and quantity of production as needed by the destination markets.
- Lack of attraction to entrepreneurs and stakeholders in absence of infrastructure and market network development.

6. SWOT Analysis

In addition to the challenges and issues as described above, further analysis of the sector can be drawn from the analysis of strengths, weaknesses, opportunities and threats (SWOT Analysis) as described in the following chart:

Table 10: SWOT Analysis of the Floriculture Sub-sector

Strengths:	Weaknesses:
• Domestic production gaining momentum to cater the major parts of local market, as a result import is gradually substituted • High quality production with low level infrastructural facilities. • High value addition in the country • Favorable geo-climatic conditions and rich in bio-diversity with topographical conditions. • Knowledgeable and enthusiastic entrepreneurs, and few established organizations • Availability of high value special cultivars and exotic species • Use of appropriate technology for quality products • Availability of land and labor force • Market linkages with neighboring countries, particularly with India	• Poor entrepreneurship development: farmers are not institutionalizing their business and hesitant to boost further investment • Lack of stability in production in type and volume as required by the markets • Poor fertigation system • Weak value chain network infrastructure including cold storages, collection center, warehouses and other distribution facilities • Inadequate skilled manpower • Insufficient financial/credit facility • Inadequate information on world market and trading system • Poor knowledge of farm management
Opportunities:	**Threats:**
• Upward trends in domestic market • Export prospects to India, Bangladesh, Gulf countries and other Asian countries • Potential for generating additional employment • Growing world market demand • Favorable market access condition with preferential tariffs • Strengthened women entrepreneurs with their high involvement value chain development • Some supportive government initiatives • Off seasonal production getting better market in India	• Non-tariff barriers in destination markets • High competition due to subsidies and technical supports by the governments in neighboring and African countries, like China and India. • Unfavorable policy and low level of financial and technical support • Restriction on import of specific fertilizers needed for the flowers and ornamental plants. • Imposition of VAT on inputs imports by the farmers. • Banks and insurance companies are not interested to provide their services and facilities at priority rates • Labor union and political instability

7. Measures to address the critical issues

In order to address the critical issues, challenges, weaknesses and threats as analyzed earlier in this document, the proposed measures are explained below:

7.1 Policy and Regulatory

While analyzing critical issues, some of the issues are highly related to policy measures that mostly Government of Nepal could take. Likewise, some issues are also related to policies that could be adopted by private sector, especially through developing good floriculture practices. Such required policy and regulatory measures can be highlighted as below:

Policy measures to be taken by Government of Nepal

- As the Floriculture promotion Policy, 2012 is already under implementation, which includes detailed implementation plan, needs to be implemented effectively with appropriate Monitoring and Evaluation framework and strong institutional backup.
- Agriculture Development Strategy should prioritize floriculture sub-sector in view of potentiality of its value chain development and market prospects abroad.
- As the Government of Nepal is updating Nepal Trade Integration Strategy 2010, this sub-sector should also be a part of the strategy in view of value addition and export market prospects.
- Subsidized credit and other facilities for collective and cooperative farming at local level should be ensured
- Collection center, common facility center, and cold storages (warehouse) at least at district level in public private partnership modality needs to be supported
- VAT and Tax exemption on earning from floriculture sector
- Tariff facility for import of inputs of floriculture products should be ensured
- Policy measures to be taken by private sector
- Collective branding, packaging and collective trade mark of Nepalese floriculture to be initiated by private sector with support from GoN
- Transparent supply chain process to be ensured to motivate people in this sector in entire value chain process
- Buy back guarantee from big business houses and exporters with minimum price to the farmers and producers to be assured

7.2 Production and Value Chain Development

- Development and dissemination of manual of the entire production process of the floriculture sub-sector
- Provide trainings in different subjects and sub-sectors of the floriculture to all stakeholders
- Provide training on post-harvesting, packaging, labeling and storing
- Subsidize seeds and nursery plants to farmers
- Collection and warehouse in major hubs
- Implement all provision of Floriculture Promotion Policy and Agriculture Policy

7.3 Marketing

- Initiate collective branding and trade mark of Nepalese floriculture sub-sector
- Identify potential markets, especially focusing on neighboring countries
- Conduct promotional activities in major destination markets
- Conduct research and study to identify major choices of consumers in niche markets
- Conduct research to identify exotic species available in Nepal and explore market for such items
- Utilize Nepalese mission abroad in major export destination markets

7.4 Institutional and Infrastructural

- Enhance capacity of Floriculture Association towards developing value chain development project, policy advocacy and also promotion of the sector at national and international levels

- Human resources development through necessary training and exposures to members of the association at national and international levels
- Persuade to develop road connectivity necessary for the value chain development of the sector in the districts as appropriate
- The Floriculture Business Development Coordination Committee as envisaged under the Floriculture Promotion Policy 2012 should be functional, meet frequently, and play an active role for promotion and development of the sector
- Persuade government to allocate adequate land to lease for nursery development/floriculture business in each municipality, especially in newly developed municipality and proposed model cities in different areas of the country

8. Government Policies and Justification for Prioritization

Floriculture business is an emerging sector of Nepal, which has contributed to employment generation and poverty reduction in the country. It has not only contributed to export but also to import substitution over the past few years. As the sector is just emerging, it may not have much share in export at present. However, while assessing its prospects, it has a high level of potential at domestic and international market in the days ahead.

Nepal as a Least Developed Country, has been taking initiatives towards enhancing export capacity through various measures including policy, strategy, institution, program, project and different activities. In this context, Nepal Trade Integration Strategy, 2010 is under implementation since 2010 with support from development partners, private sector, civil society and others. Considering the dynamic nature of trade and changing scenario of global trade, the Government of Nepal has decided to review and update the strategy to make it timely by adjusting changing context. Currently, the review and update process is at the final stage.

Likewise, the Government of Nepal introduced new Trade Policy in 2009 with an objective of supporting economic development and poverty alleviation initiatives through the enhanced contribution of trade sector to the national economy. As the trade strategy was initiated to update, formulating new Trade Policy was also started simultaneously in order to ensure coherence between trade policy and strategy. As a result, the final draft of new Trade Policy 2015 is waited for final approval.

The NTIS 2010 has been well accepted as a comprehensive strategy in the export sector development of Nepal. The strategy is focused on strengthening trade negotiation capacity, strengthening Non-Tariff Barriers (NTB) related domestic capacity, strengthening supply capacity of “inclusive exports” (Supply Capacity of priority export sectors), and strengthening capacity to manage AfT/TRTAs (Resource mobilization). The value chain development of potential export sectors has been well considered in the strategy with priority export products and then by recommending required course of action. The following four criteria were adopted in selection of priority products:

a) Export performance
b) World market condition
c) Domestic supply condition
d) Socio-economic impacts

Nineteen priority export potential sectors (goods and services) were selected through a rigorous analysis based on the indicators as identified above. However, the floriculture sub-sector has not been enlisted in the strategy irrespective of its high potential as compared to few of the sectors included in NTIS 2010, such as honey and hydroelectricity.

The process of review and update of the strategy is now at the final stage. As per the information from the media, process has not been yet finalized and therefore, further initiatives taken by floriculture sector could also be a part of the review and update process.

The strategy would focus mainly on enhancing overall business conducive environment and addressing major cross cutting issues. Among such focuses, enhancing road connectivity, establishing common facility centers, strengthening testing laboratories, enhancing trade negotiation capacity, improving trade related policy and strategies and others will be major areas of the review process. On the other hand, this process may also focus on selecting few priority export potential products (goods and services) in order to make specific intervention for the next five years. In this context, the selection process of new priority sectors is also based on some major indicators given below:

Indicators for Selecting Priority Export Potential Sectors

a. Export Performance Indicators

a. Export Size
b. Export Growth
c. Export potential index
d. Potential value addition
e. Potential destinations diversification

b. Inclusive and sustainable development

a. Regional balance (Development regions)
b. Environmental impact
c. Employment generation
d. Gender impact
e. Skills and earnings

Those criteria adapted for selecting priority export potential sectors seems broadly accepted to focus export performance aspects as well as impacts of export growth in poverty reduction and inclusive development. While discussing incorporation of any sector in the priority export list of Government, meeting these criteria becomes essential. In this context, assessment of floriculture sub-sector from the following perspective needs to be carried out.

As discussed in the earlier chapter, the total export of the floriculture sector including its three sub-sectors is about Nrs 8.45 million for the year 2013/14. The export volume is low while compared to most of the priority export sectors included in the NTIS 2010. However, this is still far above the figure of export of honey, which is also a part of NTIS products. Furthermore, the world market condition of the floriculture sector is also growing rapidly over the last few years. It indicates the high potential in the global market. The growth of floriculture sector in world market is also reasonable during the period of 2010 to 2014. However, the growth in quantity is higher than the growth of value which clearly indicates the increasing productivity and lowering the market price of the sector.

Similarly, the sub-sector has a broad base for socio-economic development, where it provides about 41,000 employment opportunities. Likewise, many people in informal sector are also involved in this sub-sector. As a result it has a very good impact in socio-economic development and employment generation. More importantly, this sub-sector has prospects of transferring income from a group of rich classes and institutions to low income group and thereby play a crucial role in poverty reduction.

Hence the sector has high potential for export in future and also meets most of the criteria of entering into new NTIS.

NTIS -Where should we focus?

In order to be a part as a priority export potential sector of Trade Strategy, the following areas should be focused:

i. Meeting the criteria set by the GoN

The floriculture sub-sector may require meeting the basic criteria set for selecting priority export potential products by the government. In this context, the following areas need to be focused:

a) **Enhancing export quantity and value of the sector:** As export size is one of the criteria of the strategy, the entrepreneurs involved in floriculture sub-sector need to enhance export quantity and value of the sector. The current export value of the sector is about Nrs. 8.45 million for the year 2014, which is far lower than the goods enlisted in the NTIS 2010 except honey.

b) **Export Growth:** In addition yearly growth in export value is also equally important. Although the export growth of the floriculture sub-sector is not consistent future export prospect is bright in view of growing production for domestic market and development of production base in the country. Therefore market prospect could be a supportive point to make valid and rational argument for being incorporated in the priority list of export potential sectors.

c) **Export Potential Index:** Likewise, floriculture sector also needs to focus on enhancing export potentiality of the sector in future. In this context, there is a good market potentiality in domestic as well as in international market. For example, the domestic market is growing by about 10 to 15% and the international market is growing between 4 to 11 percent. Such growing market of the sub-sector is also a supportive base to persuade competent authority in order to incorporate in the strategy.

d) **Potential Value Addition:** Export value without significant value addition is considered just as a transit or as assembled industries for the particular goods. Therefore, Government of Nepal has highly valued the potential value addition of any exportable product as one of the major indicators in order to select priority export products. In this context, the floriculture sub-sector has a strong point because of its high value addition within the country. Proportion of value addition is almost 75 to 90 percent of total value in this sub-sector.

e) **Potential destinations diversification:** Exporting in a single country or only few countries may also be risky for sustainable export of any sector. This is mainly because of the probable risk and crisis in those potential destinations. For insistence, Nepalese honey used to be exported to EU, particularly in Norway, but because of the pesticide residue in few cases, the import of honey in Norway was banned from Nepal and as a result the export of honey lowered to nominal figure. While discussing about the floriculture sub-sector, Nepal has exotic species and production prospects for some niche items that can be exported to different selected markets. This also indicates high potential to destination diversification.

f) **Inclusive and sustainable development:** In addition to the abovementioned indicators related to export performance, other indicators, especially focusing on regional balance, environmental impact, employment generation, gender impact, skills and earnings are the main indicators reflecting inclusive and sustainable development, which are also equally important to be taken into account. In this context, the floriculture sub-sector has high level of potentiality based on the indicators reflecting inclusive and sustainable development. As this sub-sector is mostly based on labor force, it has a strong base for employment generation if expended to its potential level including high level of involvement of women labor forces and also women entrepreneurs. Similarly, the floriculture business at present is mostly centralized in the central development region and limitedly expanded to other major urban areas, such as Pokhara, Biratnagar, Chitawan. However, it can be easily expanded to different areas of the country focusing on the potential cultivation areas. Common facility center, collection and warehouse in different areas could be supportive in this perspective.

Hence, the sector mostly meets the other criteria of the selecting priority export potential sectors except the size of export. In this context, the association and entrepreneurs could take the base of other criteria very strongly and initiate expanding the sector across the country in a speedy manner. It would definitely be supportive as a highly a convincing argument in lobbying with the government authority.

ii. Advocacy of potentiality

Meeting all the criteria only may not be enough mainly because of the different modality and approaches that are followed during the policy and strategy development. In this context, adequate advocacy from the association and entrepreneurs is also equally important to make policy designers aware of the situation and potential. Furthermore, the current efforts made by the association regarding the research and development, preparing outreach material seem highly appreciated. However, adequate promotional activities and dissemination of the information is crucial. Therefore, advocacy and information dissemination needs to be expedited.

Finally, trade is dynamic and the world trading scenario is ever changing. Therefore, changing trade policy and strategy to make them timely by adjusting the changing context is also essential and incorporation of any sector at once in strategy is not forever. It indicates that if the floriculture sector would be able to increase the export volume significantly in few years, the sector could definitely be incorporated in the Nepal Trade Integration Strategy while reviewing and updating the strategy after five years. It is a right time to make enough advocacies about the sector and make all stakeholders and concerned agencies aware of the future potential of the floriculture sector.

Agricultural Policy and Strategies

Government of Nepal in collaboration with Floriculture Association Nepal has launched Floriculture Promotion Policy 2012 with an objective of enhancing production and productivity of floriculture sector, increasing involvement of private sector focusing on import management and substitution and export promotion of the sector, and protecting and promotion of local genetic floriculture. This Policy has constituted 12 members Floriculture Business Development Coordination Committee chaired by the Secretary of the MoAD. The Committee is represented by the MoF, MoFSC, MoCS, MoI, DoA, MoAD, NARC, FAN, AEC and private sector. The policy has also very articulately spelled out detailed implementation work plans for the next five years by the decision of the Government of Nepal on 2071/3/6 BS. In addition, the Ministry of Agricultural Development (MoAD) and agencies under it have put their efforts towards development and promotion of the sub-sector to some extent. However, there has not been much focused intervention in this area from government of Nepal.

Despite various prospects and potential, the floriculture sector has not much in priority in Government policy and programs. National Agriculture Policy (NAP), 2054 focused on enhancing productivity of agricultural sector by extending required support to and partnering with private sector and farmers as per need and available resources, but not specifically focused on floriculture sector. Likewise, the Agriculture Development Strategy (ADS) has figured out some of the issues and incorporated the areas to commercialize the agriculture sector. The policy and strategy have not specifically focused on a particular sector but mostly focused on overcoming common and cross cutting issues that would benefit all agricultural sectors if addressed adequately. Hence, as per the discussion and analysis above, the floriculture sub-sector should also be incorporated in agriculture policy and ADS explicitly in order to exploit the sector with its full potential.

9. Recommendations and Conclusion

In view of the entire findings and analysis, it is recommended that the existing farming techniques should be improved through technical training and improved value chain development interventions. Expansion of the area and incorporating supportive mechanism from national to local level, especially at municipality level has become an urgent requirement of the sector to make it a part of priority export sector of Government of Nepal. Similarly, improved branding and packaging, grading and segregating should also be carried out in order to achieve substantial expansion and value addition.

Storage facilities, collection centers, and institutionalized cooperatives for production and trading would enhance the value chain and marketing function with increased benefits to the main actors and stakeholders of the sector.

The following recommendations have been made in order to achieve the expected result:

- Implementing the action plan of the Floriculture Promotion Policy 2012 effectively with proper institutional mechanism and effective monitoring and evaluation
- Establish a functional Floriculture Development Center with adequate technicians for regular training and guidance to farmers and product developer
- Effective implementation of Floriculture Promotion Policy 2012 with appropriate functioning of the Floriculture Development Coordination Committee.
- Launching extensive training programs among farmers/nursery developers on better techniques for quality farming, disease minimization and control, nursery management as well as post-harvest handling and processing
- Expanding nurseries to meet growing demand and encouraging private sectors to invest in nurseries by providing required technical support and credit facilities
- Strengthening the NARC in the areas of variety development and Nepali product differentiation. NARC may initiate research program for development of floriculture sector
- Organizing farmers/nursery operators into cooperatives for better approach to farming, enhancing scale, strengthening their capability to interact with traders and also for better marketing
- Opening floriculture sales outlets in potential markets. These would help promote Nepali floriculture business people among foreign buyers and develop direct contacts among exporters and buyers.
- Individual farm and firm should register and promote their brands through government support.
- Disseminating information about the potential of floriculture at wider level.

Annex 1

Floricultural Business in Nepal - at a Glance

- A Brief History:

  1955 First nursery was setup

  1983 Hotel started use of cut flowers for decoration

  1992 Floricultural Association Nepal (FAN) was established

  1993 A cut flower shop was set up at Tribhuvan International Airport (TIA)

  1995 FAN organized first Floricultural Exhibition in Nepal

  1998 Floriculture wholesale Market was established

  2001 First International Floricultural Exhibition was held in Kathmandu

  2012 Floriculture Promotion Policy was launched by the Government of Nepal

  2003 Floriculture Development Centre was set up at Godavari by the Government of Nepal

  2014 Second International Floricultural Exhibition was held in Kathmandu
- There are 650 Floriculture Entrepreneurs in 38 districts of Nepal.
- Flower cultivation cover 141 hectares of land in Nepal
- Total investment in floriculture business is Rs. 4.75 billion
- About 41,000 households are directly or indirectly dependants on floriculture business
- Women's contribution and dependency on floriculture business is more than 60 per cent.
- FAN has organized 18 national and 2 international floriculture exhibitions till 2015
- FAN has organized 5 regional floricultural exhibitions till 2015.
- FAN and other chambers and association have jointly organized 16 floriculture exhibitions
- There are 86 cut-flowers producers out of which 40 have facilities for production and supply up to 8 months
- 67 Cut-flower shops are in Kathmandu valley and 5 in Pokhara. Such shops are being opened up in other parts of Nepal also.
- Rs. 1.34 billion was recorded as total turnover of floriculture business in 2013/14
- Rs.8.45 million worth of floricultural products were exported in 2013/14
- Rs.82.14 million worth of floricultural products were imported in 2013/14
- 95% of seeds required for seasonal flowers are imported
- 60 to 70 % of ornamental plants demands are catered through imports.
- **Scope of business:** a. Nursery: seasonal, perennial and ornamental plants; b. Cut flowers; c. landscape and gardening; d. loose flowers and e. bulbs.
- **Prospects:** Annual domestic market growth 10 to 15%. About 20% of cut flowers, 60 % of ornamental plants and 90% of seeds demand are met through imports. International market demands are growing for bulbs, tissue culture plantlets, carnation, cymbidium orchids, local ornamental plants, etc.
- **Constraints:** small scale business at farmer's level, negligible investment of government and financial institutions, knowledge sharing by experience due to lack of system to introduce modern technologies and expertise, weak phyto-sanitary system, unknown pests, lack of collection and distribution system, absence of coordination between farmers and consumers, lack of communication and linkages between foreign buyers and producers, non-commercialization of local and original plants of Nepal, etc.
- **Recommendation:** Policy for investment guarantee, import substitution and export promotion; infrastructure development for wholesale markets, cold storage, refrigerated van and collection centre; package program for irrigation, green house, transport, packaging, manpower development, and seeds; research and development for local spices, manpower development, production location, diseases and pests, marketing network, etc.

Source: Floriculture Association Nepal (FAN), 2014

Annex 2

Floriculture Association Nepal (FAN)
Floriculture Business Profiles in Nepal 1992/93 to 2006/07
Estimated Flower Production and Demand and Annual Export & Import Transactions

Description/ Years	1992/93	1995/96	1998/99	2000/01	2002/03	2003/04	2004/05	005/06	006/07
Number of nursery	80	120	200	250	450	550	550	550	560
Total Land Use in hector								82	87
Number of Districts	2	11	15	16	34	34	34	34	35
Gladiolus demand in KTM (sticks/day)	100-150	2500-3000	3000-4500	4500	4000-4500	4500-6000	3000-4500	3500-4500	3500-4500
Gladiolus production (in Ropani)	10-15	50-70	120	145	312	350	341	340	342
Rose Demand (sticks/day)	100-150	1000	2000	3000	3000-4000	3000-4000	3000-4000	2500-4000	2500-4000
Rose production (in Ropani)	5	40	50	60	135	135	55	55	255
Tuberose demand (sticks/day)	50-100	1000-1500	2000	3000	2500-3000	3000-4500	1500-2000	1500-2000	1500-2000
(sticks/day)									
Tuberose production (in Ropani)		5	30	40	50	50	20	20	10
Carnation demand (sticks/day)	50-100	50-100	200-250	250-300	300-400	300-500	1000-1500	1000-1500	1500-2500
Carnation production (in Ropani)									25
Gerbera production (in Ropani)								15	15
Gerbera demand						500-1000	800-1500	1500-2500	1500-2500
Orchid production (in Ropani)							30	40	44
Orchid demand							150-200	150-300	150-300
Demand of cut flowers									
Import Cut flowers (%)	95	60	50	20	18	18	20	20	25
Number of flower Show Room in Nepal	0	14	22	33	50	56	56	58	57
Plants/seasonal flowers and cut flower									
(yearly sales in '000 Rs.)	10000	30000	40000	70200	170000	206200	216200	230000	250000
Yearly export (in Rs.) (According to TEPC Record			730560	4007569	18259383	11204703	16228315	32,634,275	20,844,930
Yearly Import (in Rs) (According to TEPC Record				1,882,973	393,377	1,338,282	239,707	1,598,385	531,817

Source: Floriculture Association Nepal (FAN)

Annex 2 (Cont)

Floriculture Association Nepal (FAN)
Floriculture Business Profiles in Nepal - 2007/08 to 2013/14
Estimated Flower Production and Demand and Annual Export & Import Transactions

Description/ Years	007/08	008/09	009/010	2010/11	2011/12	2012/013	2013/14
Number of nursery	600	600	625	635	636*	650	650
Total Land Use in hector		105	110	120	120	137	141
Number of Districts	35	35	35	35	36	38	38
Gladiolus demand in KTM (sticks/day)	3500-4000	4000-5000	4000-5000	4000-6000	6000-8000	6000-8000	6000-8000
Gladiolus production (in Ropani)	345	350	365	365	287	287	
Rose Demand (sticks/day)	2500-4000	4000-5000	4000-5000	4000-6000	7000-9000	7000-9000	7000-9000
Rose production (in Ropani)	255	275	282	282	172	172	
Tuberose demand (sticks/day)	1500-2500	1500-2500	2000-3500	2000-3500	4000-6000	4000-6000	
Tuberose production (in Ropani)	10	10	12	45			
Carnation demand (sticks/day)	2000-3000	3000-4000	3000-4000	3000-5000	5500-7500	5500-7500	
Carnation production (in Ropani)	30	40	40	83	99	107	
Gerbera production (in Ropani)	20	30	35	41	45	87	
Gerbera demand	1500-2500	3000-4000	3000-4000	3000-4500	5000-7000	5000-7000	
Orchid production (in Ropani)	55	60	60	63	63	65	
Orchid demand	150-300	200-300	150-300	150-300	250-500	1000-3000	
Demand of cut flowers							
Import Cut flowers (%)	25	25	25	20	22	25	
Number of flower Show Room in Nepal	54	60	86*	86	86	92	85
Plants/seasonal flowers and cut flower							
(Yearly sales in '000 Rs.)	260000	560000	664000	909900	1053200	1155700	12775000
Yearly export (in Rs.) (According to TEPC Record	24216171	29205311	20874000	191453039	29,573,193	11,509,798	
Yearly Import (in Rs) (According to TEPC Record	55,491,463	6,255,843	9230000	11182468	33,166,355	95,198,468	

Source: Floriculture Association Nepal (FAN)

Annex -3

Seasonal, ornamental

A) Seasonal flowers

SN	Name	SN	Name	SN	Name
1	Ageratum	14	Geranium	27	Primula obconica
2	Aquilegia	15	Gerbera	28	Primula acaulis
3	Alyssum	16	Impatiens	29	Ranunculus
4	Begonia	17	Laurentia	30	Rudbeckia
5	Campanula	18	Marigold	31	Snapdragon
6	Cineraria	19	Marigold(French)	32	Torenia
7	Cleome	20	Melampodium	33	Verbena
8	Cyclamen	21	Nicotiana	34	Vinca
9	Dahlia	22	Ornamental Pepper	35	Viola
10	Dianthus	23	Osteospermum	36	Zinnia
11	Eustoma	24	Pansy	37	
12	Gaillardia	25	Pentas		
13	Gazania	26	Petunia		

B) Ornamental Plants (Non Flowering):

SN	Name	SN	Name	SN	Name
1	Are curia cookie	9	Phoenix,	17	
2	Cycas	10	Phylodron,	18	
3	Dracaena Varieties	11	Peace Lily	19	
4	Dyfun Bekia	12	Spider Plant	20	
5	Ficus (Ficus species)	13	Sansevieria		
6	Lucky Bamboo Plant	14	Tupidianthus		
7	Nolina,	15	Thuja varieties		
8	Palm Varieties	16	Jade Plant		

Verities of Palm

SN	Scientific Name	Common Name	SN	Scientific Name	Common Name
1	Archontophoenix alexandrae	King Palm	13	Licuala khoonmengii	Metallic Fan Palm
2	Areca catechu	Betel Nut Palm	14	Livistona chinensis	Chinese fan palm
3	Areca catechu var. batanensis	Dwarf Betel Nut Palm	15	Pinanga maculata	Tiger Palm
4	Bactris caryotifolia	Fish-tail Peach Palm	16	Ponapea hosinoi	Kattai Palm
5	Chamaedorea metallica	Metallic palm	17	Rhapis excelsa	Lady Palm
6	Chamaedorea microspadix	Bamboo Palm	18	Rhapis multifida	Finger Palm
7	Cocos nucifera	Coconut Palm	19	Synechanthus fibrosus	Monkey Tail Palm
8	Dypsis lutescens	Areca palm	20	Trachycarpus martianus sp. martianus	Nepal Martius' Windmill Palm
9	Geonoma elegans	Arecana Palm	21	Wodyetia bifurcata	Foxtail palm
10	Hedyscepe canterburyana	Umbrella Palm	22	Zombia antillarum	Zombi Palm
11	Hyophorbe lagenicaulis	Bottle Palm	24		
12	Licuala cordata var. cordata	Heart-shaped Fan Palm	25		

Verities of Thuja

SN	Name	SN	Name
1	Mayur Pankhi	6	Juniper
2	Temple	7	Silk
3	Golden	8	Silver
4	Lemon Sented golden	9	Yellow
5	Goldcrest	10	Torolus

Annex 4

List of Imported Floriculture Products in the World Market
Product: 06 Live trees, plants, bulbs, roots, cut flowers etc

Imported Value in US $ '000

Product code	Product label	2010	2011	2012	2013	2014
'060110	Bulbs, tubers, tuberous roots, corms, crowns and rhizomes, dormant	1001649	1103197	1009886	1054798	1068666
'060120	Bulbs, tubers, corms etc in growth or in flower & chicory plants & roots	481978	611156	636558	693021	707365
	Sub-total	1483627	1714353	1646444	1747819	1776031
'060290	Plants live, nes	6066826	6535081	6153772	6334994	6440299
'060220	Trees, edible fruit or not, shrubs and bushes, grafted or not	352580	414569	417478	455087	487441
'060210	Cuttings and slips, unrooted	438110	494945	475548	477299	477508
'060240	Roses, grafted or not	135916	150438	144159	149454	156080
'060230	Rhododendrons and azaleas, grafted or not	81703	84498	82486	85973	81017
	Sub-total	**7075135**	**7679531**	**7273443**	**7502807**	**7642345**
'060311	Fresh cut roses and buds, of a kind suitable for bouquets or for ornam	2659816	2971471	2996713	3165550	3296284
'060319	Fresh cut flowers and buds, of a kind suitable for bouquets or for orn	3057040	3262834	2625877	2757049	2815688
'060314	Fresh cut chrysanthemums and buds, of a kind suitable for bouquets or	769229	820725	825918	846262	822063
'060312	Fresh cut carnations and buds, of a kind suitable for bouquets or for	495324	562425	586696	586669	568965
'060390	Cut flowers & flower buds for bouquets or ornamental purposes, ex fresh	263652	1078488	297237	386657	385001
'060315	Fresh cut lilies and buds, of a kind suitable for bouquets or for ornamental purposes			272713	264159	277150
'060313	Fresh cut orchids and buds, of a kind suitable for bouquets or for orn	264126	280188	283597	244191	250522
'060310	Cut flowers & flower buds for bouquets or ornamental purposes, fresh	40212	1786	2317	1182	1079
	Sub-total	**7549399**	**8977917**	**7891068**	**8251719**	**8416752**
'060420	Foliage, branches and other parts of plants, fresh			915223	911538	893851
'060490	Foliage, branches and other parts of plants, dried, dyed, bleached, impregnated or otherwise			266166	263939	270597
'060499	Foliage,branch,etc w/o flowers/buds&grass for bouquet/orn purp exc fr	210104	220666	4661	1275	1079
'060491	Foliage,branch&pts of plant w/o flo/bud,grass,for bouquets&orn purp,fr	941127	1001169	6953	4793	849
'060410	Mosses and lichens suitable for bouquets or for ornamental purposes	35557	34564	5793	234	68
	Sub-total	**1186788**	**1256399**	**1198796**	**1181779**	**1166444**
	Grand total	**17294949**	**19628200**	**18009751**	**18684124**	**19001572**

Source: Trade Map of International Trade Centre *www.intracen.org/trademap*

Annex 5

List of Exported Floriculture Products to the World Market
Product: 06 Live trees, plants, bulbs, roots, cut flowers etc

Exported Value in US $ ‘000

Product code	Product label	2010	2011	2012	2013	2014
‘060110	Bulbs, tubers, tuberous roots, corms, crowns and rhizomes, dormant	1108981	1181637	1094244	1099698	1096062
‘060120	Bulbs, tubers, corms etc in growth or in flower & chicory plants & roots	407851	516791	533745	558132	556979
	Sub-total	1516832	1698428	1627989	1657830	1653041
‘060290	Plants live, nes	6478840	7131583	6847684	6967449	6992253
‘060220	Trees, edible fruit or not, shrubs and bushes, grafted or not	352173	411301	419151	458731	517571
‘060210	Cuttings and slips, unrooted	407746	422350	462553	477408	447695
‘060240	Roses, grafted or not	178042	186916	192331	189061	180493
‘060230	Rhododendrons and azaleas, grafted or not	81753	87721	84081	88274	79968
	Sub-total	**7498554**	**8239871**	**8005800**	**8180923**	**8217980**
‘060311	Fresh cut roses and buds, of a kind suitable for bouquets or for ornam	2457681	2963956	3125732	3309709	3235739
‘060319	Fresh cut flowers and buds, of a kind suitable for bouquets or for orn	3139427	3445802	2809525	2929908	2978327
‘060314	Fresh cut chrysanthemums and buds, of a kind suitable for bouquets or	655590	722709	761967	771908	727731
‘060312	Fresh cut carnations and buds, of a kind suitable for bouquets or for	562058	522774	514312	494409	499266
‘060390	Cut flowers &flower buds for bouquets or ornamental purposes, ex fresh	630018	486987	484911	654866	457716
‘060315	Fresh cut lilies and buds, of a kind suitable for bouquets or for ornamental purposes			523531	381713	287903
‘060313	Fresh cut orchids and buds, of a kind suitable for bouquets or for orn	229162	247755	249133	213022	198972
‘060310	Cut flowers & flower buds for bouquets or ornamental purposes, fresh	12008	6343	5758	7256	8013
	Sub-total	**7685944**	**8396326**	**8474869**	**8762791**	**8393667**
‘060420	Foliage, branches and other parts of plants, fresh			907428	837381	820856
‘060490	Foliage, branches and other parts of plants, dried, dyed, bleached, impregnated or otherwi			288017	317155	297370
‘060499	Foliage,branch,etc w/o flowers/buds&grass for bouquet/orn purp exc fr	975682	1044760	23262	3076	26071
‘060491	Foliage,branch&pts of plant w/o flo/bud,grass,for bouquet s&orn purp,fr	286457	276472	43520	6304	4713
‘060410	Mosses and lichens suitable for bouquets or for ornamental purposes	33535	36533	1172	215	24
	Sub-total	**1295674**	**1357765**	**1263399**	**1164131**	**1149034**
	Grand total	**17997004**	**19692390**	**19372057**	**19765675**	**19413722**

Source: Trade Map of International Trade Centre *www.intracen.org/trademap*

Annex:6

Input Supplier's list

Seed

SN	Company Name	Address	Tel. No.
1	Crop Pro-tech Nepal	Devtec House, 87 Nachghar Galli, Kantipath, Kathmandu, Nepal Email: info.cptn@gmail.com	4223137,9851062446 Fax:4229185
2	Kumari Flora Firm	Paknajol, Kathmandu Nepal E-mail: prabindra@wlink.com.np	4220132, 4215339 9851057915
3	Karma and Sons Traders	Swoyambhu, Ring Road, Kathmandu-15, Nepal	4302956, 2020348, 9851042480
4	Annapurna Beej Bhandar	HHA 2-664, Ason tole, Kathmandu -27, Nepal. Email: annaseeds@yahoo.com	4221888, 4427772, Fax:4258678
5	Jai Kishan Seed Centre	Tebahal, Newroad, Kathmandu, Nepal email: jaykisan@wlink.com.np	4245308, 4222634, Fax:42669950

Planting Materials for cut flowers, Perennial/Ornamentals, and Bulbs and Tubers:

SN	Company Name	Address	Tel. No.
1	Floriculture Cooperative Limited	Battishputali-9, Kathmandu, Nepal	977-1-4465790
2	Crop Pro-tech Nepal	Devtec House, 87 Nachghar Galli, Kantipath, Kathmandu, Nepal	4223137,9851062446
3	Kumari Flora Firm	Paknajol, Kathmandu Nepal	4220132, Fax: 4215339
4	Siam Floritech	Kupandole, Ward No-10, lalitpur, Nepal	2114330, fax:5549745

Tools and Equipments: All agriculture input suppliers and Agro-vet/agro shops

SN	Company Name	Address	Tel. No.
1	Crop Pro-Tech Nepal	Devtec House, 87 Nachghar Galli, Kantipath, Kathmandu, Nepal, Email: info.cptn@gmail.com	4223137, 9851062446 Fax:4229185
2	SIAM Floritech (Nepal)	Kupandole, ward no-10, lalitpur, Nepal	2114330, Fax: 5549745 9851033731
3	Dahal Trading Concern	Tripureswor, Kathmandu Nepal	4260751, 4260381, 9851027967
4	Agriculture Trading Centre	Tampoo Park, Sitapaila Chock, Kathmandu Nepal	4232873, 9841330933
5	Shalom Agriculture (P) Ltd.	Goldhunga-1, Kathmandu email: shalomag30@gmail.com	9851150238, 9802043775
6	Maha Agriculture (P) Ltd.	Jitpur phedi, Kathmandu, Nepal email:parshuram_katuwal@yahoo.com	9851102655

Fertilizers Suppliers:

SN	Company Name	Address	Tel. No.
1	Nepal Pollution Control and Environment Management Centre (NEPCEMAC)	Ekantakuna, Lalitpur -13, Nepal, Email: nepcemac@mail.com.np	5541976,9841254633
2	Joshi General Suppliers	Purnachandi Marg, Lalitpur, Nepal	5547459, 5547404, 9721382590
3	Praramva Biotech Pvt. Ltd.	Ramkot-6 Kalanki, Kathmandu, Nepal	4034294, 9851159637

Green Houses, Plastic (UV) and Irrigation system suppliers:

SN	Company Name	Address	Tel. No.
1	Abloom Flora Farm	Gunjanagar, Chitawan, Nepal	9855057207
2	Floriculture Cooperative Limited	Battishputali-9, Kathmandu, Nepal	977-1-4465790
3	Crop Pro-Tech Nepal	Devtec House, 87 Nachghar Galli, Kantipath, Kathmandu, Nepal , email:info.cptn@gmail.com	4223137, 9851062446
4	Sagar Plastics	Dillibazar, Kathmandu, Nepal	9849642990
5	Shalom Agriculture (P) Ltd.	Goldhunga-1, Kathmandu, Nepal	9851150238, 9802043775
6	Maha Agriculture (P) Ltd.	Jitpur phedi, Kathmandu, Nepal	9851102655

- Direct Suppliers from India (Agri-plast India, Pink Vision India, ESSAN Multi-pack India etc.)
- Insecticide/Fungicide supplies: All agro chemical suppliers and Agriculture Inputs Company Ltd.

Source: Floriculture Association Nepal (FAN)

i. Dr. Regmi S.K., Nepalese Floriculture, Production, Export Potential and Import Substitution (in Nepali) FAN, March 2015.

ii. Lamichhane, D. (National Botanical Garden) Status of Types of Ornamental Plants and Revenue Collection, Nepalese Floriculture, FAN, March, 2015.

iii. World Floriculture Map 2015 of Rabobank, Utrecht, the Netherlands, January 2015.

iv. Flora Holland and Rabobank, Joint Press Release, 28 January 2015.

v. International Trade Centre (ITC), Geneva.

vi. International Trade Centre (ITC), Geneva, World Market News – Floriculture 2012

vii. Umed Pun PhD, Two Decades of Floriculture Journey in Nepal, Floriculture Second International Flora Expo 2014, Floriculture Association of Nepal (FAN), 2014.

viii. Lok Nath Gaire, President and Dilip Bade, Secretary General, FAN Executive Committee, and Annual Report of FAN 2015.

ix. Fertigation is the injection of fertilizers, soil amendments, and other water-soluble products into an irrigation system.

Floriculture Association Nepal (FAN)

Kathmandu, Nepal