

# DTIS ACTION MATRIX

## 1. MACRO-ECONOMICS POLICIES

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
1.1. Seek out an optimal exchange rate policy, more supportive of trade and industrial development policies	Set up a group of experts, including at least one international senior consultant, to discuss different scenarios of exchange rate policy, weighing the benefits versus costs, taking into account the macroeconomic fundamentals of Bhutan.	Medium	RMA, MoEA, DoI, DoT, MoF, GNHC,	Consultancy		\$100-200,000
1.2. Seek a better match between needs of economy and labour market	Create a group of experts to review measures to increase intake of educational system with a bias towards engineering and business, reform vocational training, weigh pros and cons of selective immigration, analyze rural migrations towards cities and needs for training, propose measures for improving functioning of labour market (information, up-grade skills ...)	High	GNHC, MoLHR, MoE, MoEA, MoIC, BCCI, civil society	Consultancy		\$250,000
1.3. Improve quality and homogeneity of statistical data on trade and FDI	<ul style="list-style-type: none"> <li>Set up system to harmonize data on FDI flows reported by RMA and DoI</li> <li>Participation of DoT with RMA annual survey of informal trade (joint publication)</li> <li>Capacity building with the aim of ensuring that officials are systematically trained to generate and use data.</li> <li>Infrastructure development, including installation, training and implementation.</li> </ul>	High / two years	RMA , NSB, DRC/DoT and DoI (MoEA)	Institutional strengthening & capacity development	IMF and UNCTAD have been active in the sector.	\$1-10 million
1.4. Raise awareness about issues related to Dutch disease and rent seeking	Organize a task force with main actors. After review of issues, if appropriate, prepare a plan of action.	Medium	GNHC, MoEA, MoF, civil society, BCCI,	Policy	This is a potential problem which could developed by the exploitation of hydropower resources are more important, let us say 5 to 10 years from now. Good development policies will lower the risks of Dutch disease.	

## 2. PRIVATE SECTOR DEVELOPMENT

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
2.1. Entrepreneurship development						
2.1.1. Build up a class of entrepreneurs (SMEs)	<ul style="list-style-type: none"> <li>Enhance Entrepreneurship Promotion Programme at the MoLHR and include export and FDI. Grant trainees cheaper access to credit.</li> <li>Teach social entrepreneurship at the university and in other educational institutions to raise the profile and sense of social merit for this field.</li> <li>Awards for excellence to give formal recognition to entrepreneurs.</li> <li>Promote a dialogue between colleges and technical institutes, and private sector.</li> <li>Generalize internship programmes in colleges and vocational training institutes.</li> <li>Include in curriculum courses and lectures by practitioners</li> <li>Policy advocacy and advisory services</li> </ul>	High/duration 10 to 20 years  High  High  High/3 to 5 years	MoLHE/ MoE BCCI, MoIC (IT park), civil society, DCSI (MoEA)	Capacity development. Human resources.  Training and policy  Task force for awards	Build on existing programme on entrepreneurship in MoLHR.  There is a proposal by Dalhousie University, Sherubtse College, for a partnership for sustainable business courses.  Bhutan's seal of excellence programme can be used as a model.	First phase (3 years): \$900,000  No cost or minor expenditures (no need for donor's involvement).
2.2. Create an enabling institutional framework for SMEs						
2.2.1. Strengthen the institutional framework for SMEs	<ul style="list-style-type: none"> <li>Broader and deeper SME financing options.</li> <li>Provide a large range of financing options targeted at SMEs of all sizes, including collateral-free loans and possible venture capital funding.</li> <li>Mobile technology to lower cost of micro loans.</li> <li>Reduce the cost of providing micro loans or business.</li> <li>Information by using Mobile phones of borrowers to access and administer loans.</li> </ul>	High Initiate mid 2012 with aim to make operational by mid-2013  Medium Initiate mid 2012	MoF, RMA, MoEA (DCSI), BCCI, MoLHR, MoIC, financial institutions.	Policy task force  Consultancy	Loden Foundation programming is a very good basis to inform this development for larger SMEs, along with MoLHR vocational training and Bhutan Development Bank, Ltd. for micro enterprises.  Mobile phones are being used by Bhutan Development Bank Ltd. to show statements to village clients; building on this experience, develop apps to transfer money, pay bills...	

2.2.2. Create legal and institutional framework for business infrastructure	<p>Conduct study to determine the need for dedicated agency to foster business infrastructure such as Industrial Estate Authority.</p> <p>Develop infrastructure development policy. Facilitate private investment (developers) in infrastructure development through facilitation and incentives.</p> <p>PPP Policy and implementation.</p>	High	MoEA, DHI, BCCI			
2.2.3. Set up consultative services (Branding, marketing, packaging, technology transfer, GIs and other IPR...) for SMEs	<p>Set up a consultancy firm to provide services to SMEs</p> <p>The Unit would provide (1) training for small groups of entrepreneurs, (2) “commercial” consultancies as requested by individual firms.</p> <p>During the first two years, the Unit could be located within the BCCI. After that initial period and depending of the results achieved, the Unit should be transformed into a business entity, able to become a sustainable business.</p> <p>The Unit should be composed of five full-time national staff, seconded as needed by international and national consultants. The ITC would provide international consultants and logistic support.</p> <p>Business incubation services. Provide incubation business support services to SMEs of all sizes.</p>	High/initiate early 2012;  Medium /2012	GNHC, MoEA, BCCI, MoLRH, DHI	Team of international and local consultants	Concerning business incubators, a new agency, Bhutan Innovation and Technology Centre (BITC) has been established near the IT Park. The BITC provides incubators to enterprises of all sectors, e.g. agriculture, handicraft, manufacturing, ITeS, etc. The business women's association also provides incubator services to its members. The resources available and the response to the needs for incubators need to be assessed before committing additional resource to that activity. This is why this action is rated medium.	
2.2.4. Provide incentives to manufacturing firms to develop business in Bhutan	<p>Reimburse excise duty paid on importing semi-finished goods manufactured in India and imported by Bhutanese firm</p> <p>Continue discussions with the Ministry of Finance on modalities for obtaining reimbursement of excise duty to Bhutanese firms that have paid that excise when buying finished or semi-finished goods manufactured in India.</p>	High/2012	MoF, MoEA, BCCI	Policy dialogue		

2.3. Promote development of value chains					
2.3.1. Set up a task force for promotion of SMEs linkages	Create a mechanism for promoting linkages in the SME sector Make regular surveys of existing private sector businesses and find out where linkages are missing (i.e. local packaging production and design, etc.), identifying these as potential areas to promote new entrepreneurship.	High/ first survey 2012	MoEA, DCSI, Loden Foundation, MoLHR, MoF and BDev. Bank	consultancy	Loden Foundation is already engaged in cultivating SMEs of larger size. Building on their body of knowledge, a consultant can design this survey.  MoF is already looking into these issues. IFC supports such efforts and seek partners for developing local venture capital.
2.3.2. Support enterprise-led solutions	Undertake value chain analysis, accounting for possible synergies and linkages. Encourage appropriate enterprise-led innovation in rural areas, from individuals marketing produce of disparate farmers to new products being created such as new produce, Bhutanese handicraft toys, etc...	Medium/initiate mid-2012	MOFA, BCCI	Consultancy	OGTP is designed to examine markets, linkages and synergies in identifying products for scaling up in each respective Gewog. This effort can be expanded to include non-agricultural products and services.

### 3. TRADE AND INVESTMENT POLICY AND INSTITUTIONS

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
3.1. Increase FDI attractiveness	<ul style="list-style-type: none"> <li>Develop implementing FDI regulations, institutional building and investment promotion. Draft FDI legislation</li> <li>Carry out an Investment Policy Review (IPR) and use findings to review investment climate and investment strategy</li> <li>Design an investment promotion strategy, including a more refined analysis of sectors for investment and promotion</li> <li>Capacity building in invest. related issues, e.g. FDI statistics, investment promotion techniques, policy advocacy, after care, dispute settlement and resolution of conflicts, IIAs and IP related issues</li> <li>Study the need to ratify international investment and dispute settlement treaties</li> </ul>	High/ two years	MoEA, DHI	Policy / legislative Act	IFC and UNCTAD have considerable experience and expertise on FDI issues; many reports on FDI policies in other countries can be consulted.	

<p>3.2. Foster Export Promotion</p>	<ul style="list-style-type: none"> <li>Product differentiation and product identification. Branding and geographical indications, trademarks, collective marks and other IP Rights instruments should be used as a source of niche marketing to identify products of Bhutanese origin.</li> <li>Identification of Bhutanese products to be covered by GIs and Protected Denominations of Origin (PDOs) and assistance to handicrafts producers for submitting applications of collective trade mark registration. Assist the products identified above in meeting SPS and other market requirements to penetrate exports markets.</li> <li>Signature line. A specialized line of pro-poor products can be developed to trade. Products from the more remote areas of OGTP can be bundled together and marketed by incorporating this specific story.</li> <li>Improved coordination for marketing of pro-poor goods and services. Use the coordination facility of the GNHC to ensure that marketing of agricultural, tourism, crafts and other potentially complementary products are given cohesive support. At trade fairs, showcase the full range of products to reinforce synergies in Brand Bhutan products.</li> <li>Proactive marketing support. Use embassy resources in other countries to identify suitable outlets for branded products and provide a service of screening products and enterprises and then connecting them to distribution buyers.</li> </ul>	<p>High /initiate early 2012</p> <p>Medium /initiate mid 2012</p> <p>High /initiate early 2012</p> <p>Medium / mid 2012</p>	<p>MoA, MoFA, MoEA, TCB, GHNC, BCCI</p>	<p>Policy /TA</p> <p>Policy /TA</p> <p>Consultancy (Policy /TA</p> <p>Institutional dev. / policy</p> <p>Policy /institutional dev.</p>	<p>TCB, MoA and MoEA all have separate programmes to market respective goods and services. These can be coordinated more strongly by GNHC.</p> <p>DoT is already providing export promotion facilities as is MoAF. These could be strengthened using existing resources.</p>	
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<p>3.3. Strengthen the EIF structure</p>	<ul style="list-style-type: none"> <li>• Designate two senior trade officials and one support staff to work full time on EIF matters:</li> <li>• assist the EIF Focal Point and service the National Steering Committee</li> <li>• Projects proposal-writing and projects management.</li> <li>• Mainstreaming trade into national development policy</li> <li>• Advocacy work and organization of capacity building activities</li> <li>• Organize/ facilitate monitoring and evaluation of the EIF programme</li> <li>• Finalize arrangement for a Donor Facilitator</li> </ul>	<p>Very high/ on-going</p>	<p>MoEA; MoFA</p>			
<p>3.4. Mainstreaming trade into development</p>	<ul style="list-style-type: none"> <li>• Raise the visibility of trade and develop a more inclusive trade agenda</li> <li>• Advocacy role for trade and development during preparation of the II<sup>th</sup> FYP</li> <li>• Secure representation in annual work on budget</li> <li>• Liaise with authorities responsible for setting agenda of Round Table Meetings and arrange to have trade and investment issues to be discussed during next RT</li> <li>• With the Donor Facilitator, work on developing an Aid for Trade agenda</li> <li>• Use monitoring and evaluation to mainstream trade in development policies</li> <li>• Develop trade related indicators</li> <li>• Work with other ministries and agencies to develop intermediate steps to develop high-end services</li> <li>• Improve communication on trade policy and reach out to stakeholders</li> </ul>	<p>Very high / immediate</p>	<p>DoT, DoJ,GNHC, MoIC, DHI</p>	<p>Policy, planning and advocacy.</p>	<p>Worked closely with the Donor Facilitator.</p>	

	<ul style="list-style-type: none"> <li>• Devise a linkages development policy:</li> <li>• One-stop centres</li> <li>• Local supplier upgrading programmes</li> <li>• Incentive schemes</li> <li>• Local content, export performance and transfer of technology requirements</li> <li>• Cluster industries. Rethink the incentive package for the current industrial estates</li> </ul>	High/ 1-5 years			ITC has considerable experience in developing industrial linkages.	
	<ul style="list-style-type: none"> <li>• Screening tool for existing policy and projects</li> <li>• Create a retrospective tool to 'clean out the closet,' reviewing areas where existing practice is not in line with GNH philosophy. This could initially include areas such as waste management, labour standards on industrial estates.</li> <li>• Feedback through G2C on policy and projects. A mechanism can be created using the G2C network for citizens to provide information and feedback on areas that they feel are not in line with GNH philosophy.</li> </ul>	Medium/initiate mid 2012	GNHC, BCCI, Ministerial departments, Civil Society partners	Policy Task force. Consultancy.	GNH screening tools already developed to screen new policies and projects. Use as basis to create a retroactive tool.	
3.5. Establish an Economic Development Board (EDB)	<ul style="list-style-type: none"> <li>• Responsible for :</li> <li>• Policy advocacy.</li> <li>• Image building.</li> <li>• Investor targeting and aftercare.</li> <li>• Trade and investment promotion.</li> <li>• Reducing bureaucratic barriers to domestic and foreign investment.</li> <li>• Training in trade and investment.</li> </ul>	Medium to low/ one year	MoF, GNHC, MoAF, TCB, MoEA, RMA, Private Sector Committee; BCCI	Institutional development.	At the validation workshop, it was decided that it was premature to establish an EDB. This matter should be reviewed at a later stage.	

<p>3.6. Strengthen bilateral, regional and multilateral trade arrangements</p>	<ul style="list-style-type: none"> <li>• Bilateral and regional policies</li> <li>• Consider the unintended consequences of bilateral trade agreements.</li> <li>• Increase exports to Bangladesh:</li> <li>• Explore exportable products on top of the 18 items on which Bangladesh is offering duty-free treatment.</li> <li>• Identify potential buyers in Bangladesh.</li> <li>• Reduce transport and transit time by holding discussions with the Indian and Bangladesh officials at the Indo-Bangladesh transit posts.</li> <li>• Finalize a bilateral trade agreement with Nepal.</li> <li>• Encourage private sector collaboration with Thailand:</li> <li>• market survey in Thailand for Bhutanese exportable goods.</li> <li>• Identify projects for cooperation in production, manufacturing and services sectors.</li> </ul>	<p>Medium /two years</p>	<p>MoEA, DRC</p> <p>Government policy.</p>
	<ul style="list-style-type: none"> <li>• Make greater use of the GSP and EBA facilities for Bhutanese exports</li> <li>• Identify products on which preferences are being provided by developed countries under GSP;</li> <li>• Conduct trial marketing where exportable products match market entry conditions; and</li> <li>• Augment production capacities, where required.</li> </ul>	<p>High</p> <p>2012</p>	<p>Department of Trade</p>
	<ul style="list-style-type: none"> <li>• Assess nature of problems related to WTO accession</li> <li>• Set up a task force to identify key problems and actions required to protect Bhutan's objectives and way of life</li> </ul>	<p>Very high/ duration 6-9 months</p>	<p>GNHC /DoT</p> <p>Civil society and ministries involved in WTO negotiations.</p> <p>This action was identified and suggested during the validation workshop.</p>



	<ul style="list-style-type: none"> <li>Capacity building and awareness programme</li> <li>Make available technical assistance support from the WTO, UNCTAD, ITC and other relevant organizations;</li> <li>Build capacity of trade officials in the field of trade policy management; and</li> <li>Build awareness among parliamentarians, CSOs, business community, university students etc. on trade policy and its implications.</li> </ul>	High/2012	Department of Trade	Collaborate with academic institutions.	UNCTAD, WTO, ITC etc..	
3.7. Improve the intellectual property framework	<ul style="list-style-type: none"> <li>Establish an intellectual property policy</li> <li>Build capacity in private sector</li> <li>Construct an inventory of traditional knowledge</li> <li>Carefully draft a plant-variety protection regime, so as to reconcile breeders' and farmers' rights, and preserve benefit-sharing mechanisms for traditional knowledge;</li> </ul>	Medium				

#### 4. TRADE FACILITATION AND LOGISTICS

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
4.1. Boost dry port operation and identify bottlenecks in clearance process	Measure clearance time at Phuentsholing border station (customs and other border agencies) using a well-tested methodology such as the WCO Time Release study.	High/immediate/3 months	MoEA DRC &BAFRA			\$50,000

<p>4.2. Ensure a modern and efficient clearance process based on a fully automated customs clearing system, using risk management-based customs control procedures</p>	<ul style="list-style-type: none"> <li>• Component 1: Automated Clearance system</li> <li>• Evaluate the potential to optimize the use of the BACS, including lodging of electronic documents, web based architecture, and linkages with new Tax revenue system</li> <li>• Provide advice on development of new version of the BACS, or on sourcing of new software.</li> <li>• Prepare capacity building plan for IT department in line with the upgrades or new solution.</li> <li>• Component 2: Risk Management Technique</li> <li>• Develop action plan</li> <li>• Design institutional framework, including setting up a risk management unit</li> <li>• Train staff on risks, risk criteria, and risk management techniques.</li> <li>• prepare risk management database</li> <li>• Develop electronic Risk Management module and integrate it into clearance automation software.</li> <li>• Component 3: Development of soft infrastructure at border check points</li> <li>• Develop and build warehousing facilities</li> <li>• Cold storage facilities</li> <li>• Procure loading and unloading equipment</li> </ul>	<p>High/2013-2014</p>	<p>DRC, DoT</p>	<p>ADB's project for strengthening and updating the software and informatics procedures in the department of revenues and customs will start in first trimester of 2012. Need to ascertain that ADB will finance the up-date of the BACS or change of software.</p>	<p>Total \$650,000</p>
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<p>4.3. Apply the corridor approach to analysis and exploration of alternative route to sea ports via Bangladesh and seek a bilateral accord with the Bangladesh Gvt.</p>	<p>Improve understanding of the corridor approach and identify best solutions</p> <p>Component 1: Freight transit corridor analysis Corridor performance measurement using established methodology, such as the UNESCAP corridor measurement tool. Carry out field surveys</p> <p>Component 2: Corridor cluster development Identify alternative corridors, stakeholders and infrastructures (operational level from private and public sector) and entry points of entry to Bhutan Facilitate dialogue over constraints and solutions to enable them to identify solutions to difficulties faced Develop an action plan for the implementation of these solutions.</p> <p>Based on results of above feasibility study, seek to conclude an interim bilateral transit with Bangladesh</p> <p>Discussion with the government of Bangladesh for a bilateral transit Agreement as their position to have a regional transit agreement to cover flow of goods to and from Bhutan, India and Nepal will be time consuming. Drafting, negotiating and signing a bilateral Agreement.</p>	<p>High /2012-13</p>	<p>MoEA; RSTA (MoC) , BCCI exporters, Bhutanese Exporters Association and Association of Bhutanese industries.</p>	<p>Consultancy, field visit, meetings with Indian authorities and Indian private sector.</p>	<p>SAARC's regional transport studies and SAARC technical and ministerial meetings.</p>	<p>Total : between \$500,000 and \$850,000</p>
		<p>High /2013-14</p>				

4.4. Develop logistics skills of professionals of the industry	Develop and deliver a logistics training programme covering areas such as distribution channels, method of payments, and logistics management and system, and combining conceptual and practical hands-on training. Identify future delivery channels for this training programme. Assist MoLHR and private sector associates in identifying vocational training needs Organize vocational training for drivers and other handling labour.	Medium / 1.5 years	Agencies: RSTA, MoEA, MoL, BCCI & private sector associations and engineering / technology colleges.			\$150'000
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## 5. STANDARDS AND QUALITY INFRASTRUCTURE

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
5.1. Develop national capacity to certify organic products for export	Obtain accreditation of BAFRA as national organics certifying body by internationally-recognized accreditation organization. Extend contract of international long-term expert (provided by National Organics Programme to BAFRA) to assist implementation of certification role.	Very high  Very high	BAFRA  BAFRA	TA; international trade promotion.	ADB MSME Sector Development Project 2008-2011 has provided some limited support for training of BAFRA staff.	\$25,000  \$100,000
5.2. Develop national capacity to identify, evaluate and manage biosecurity risks and for emergency planning	Ensure that BAFRA has sufficient senior professional staff to fulfill its mandate. Appoint biosecurity expert for a two-year term to train BAFRA staff in biosecurity risk analysis and emergency planning, facilitate preparation of Biosecurity Act, etc. Provide additional screening equipment for cargo and passengers' luggage at border entry points.	Very high  Very high  High	MAF /BAFRA BSB BAFRA, BSB  BAFRA, BSB	Capacity building TA  Procurement		Approximately \$30,000 per annum for RGoB  \$300,000 \$500,000
5.3. Strengthen analytical capabilities for food safety	Provide adequate scientific staff to maintain NFTL's international accreditation.	High	MAF/BAFRA BSB	HR & capacity building	UNIDO SAARC-SMTQ Project 2005-2011.	\$16,000 per annum for RGB
5.4. Strengthen plant pest/disease surveillance and identification	Up-grading the National Plant Reference Laboratory. Piloting plant pest and disease surveillance programme.	Low Low	NPPC/MAF BSB	TA; infrastructure Pilot programme		\$1,300,000 \$720,000

5.5. Strengthen SMTQ capability	Institutional development of Bhutan Standards Bureau, including strategic planning, subordinate legislation, quality manuals, internet access, etc. Training of BSB staff in management, certification and standardization, etc. Up-grading of BSB testing laboratory including construction of new building, augmentation of equipment and training of laboratory staff.	Very high  High  Desirable	BSB  BSB  BSB	Technical assistance; infrastructure development  TA, capacity building. TA, capacity building. infrast. development.	UNIDO SAARC-SMTQ Project 2005-2011; ADB MSME Sector Development Project 2008-2011.	\$100,000  \$75,000  \$750,000
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## 6. SECTORS AND SUB-SECTORS WITH EXPORT POTENTIAL

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
6.1. Manufacturing						
6.1.1. Base metals and articles of base metal	Set up an independent internationally certified laboratory for testing the quality of the products. Improve roads. Connect with the Indian railway system (about 50km). Upgrade environmental protection to reduce pollution. Negotiate a reduction of tariff by Bangladesh on steel and steel products (currently at 36% and 10% respectively). Study and identify high-value energy-intensive industries.	High /2-3 years	MoEA, BSB, BCCI, NEC	Regulations, Technical and financial		Variable
6.1.2. Minerals	Combat pollution and improve wellbeing of the workers. Facilitate access to land for added value indust. Processes.	High /2-3 years	MoEA Depart.Mining, NEC, BCCI	Financial and Regulations		Variable
6.1.3. Chemical products	Encourage linkages between mineral extraction and transformation into chemical products. Combat pollution and improve wellbeing of the workers.	High /2-3 years, NEC	MoEA	Financial and regulations		Variable
6.1.4. Agro product (mixture of juices)	Quality management systems need to embrace the use of Good Manufacturing Practices (GMP) and the Hazard Analysis Critical Control Point (HACCP) system as tools to upgrade quality and guarantee food safety. Ascertain the potential in water bottles.	Medium	MoEA; MoAF; NEC, BCCI	Financial, technical and training Consultancies		

6.1.5. Handicraft	Focus on genuine traditional handicraft and improve the quality of raw materials and products. Attract foreign designers (Asia, Western) to make use Bhutanese textile in fashion collections and to adapt traditional designs to Western/ Asian tastes.	Medium /2-3 years	MoEA	Financial, technical and training	
6.2. Agriculture					
6.2.1. An omnibus recommendation for citrus, apples and potatoes (see NIES for more specific comments)	Develop the value chain with interventions in key links; e.g. coordinated collection and transportation, packaging and grading, auctioning process, improved markets and prices. Strengthen marketing and transportation infrastructure leading to improved price signals to producers, lower transaction cost and increase private sector investments. Upgrade marketing system. Simple grading at the farm level to improve product quality. Enhance capacity of extension agents; support development of private nurseries. Promote contract farming, business farming, agro-business, joint ventures & venture capitalist through more conducive policies and legal instruments.	Medium /2-3 years	MoAF	Financial, technical and training	<\$500,000
6.2.2. Citrus	Equip the newly established National Citrus Repository with required laboratory and nursery equipment/ tools for producing disease free grafted seedlings for rehabilitating declining citrus orchards from huanglongbing (HLB)/ ex-citrus greening disease. Enhance the capacity of technicians from the National Seed Centre (formerly Druk Seed Corporation) and Research in diagnostic and operation of green houses and nurseries.	High	MoAF	Financial, technical and training	\$500,000

6.2.3. Cardamom	<p>Eradicate crop diseases. Using disease-free planting materials obtained by modern technology of tissue culture can control the diseases. For this purpose, a tissue culture lab should be established. Train farmers best practices (upgraded production and drying technology)</p> <p>Develop national standards for quality and grading.</p> <p>Explore product diversification (catering spice industry, essential oil, cardamom paper, incense, color extraction).</p>	<p>High/2- 3 years</p> <p>Medium/2-3 years</p> <p>Medium/2 -3 years</p> <p>Medium/2-3 years</p>	MoAF	Financial, technical and training	<\$500,000
6.2.4. Lemon grass	<p>Encourage and promote lemon grass plantation areas.</p> <p>Train distillers for distillation and packaging.</p> <p>Offer alternative energy (possibly electricity so that less firewood is consumed).</p>	Low /2- 3 years	Departments Forests & Energy	Regulations (incentives) and training	<\$300,000
6.2.5. Medicinal herbs and mushrooms	<p>Encourage farmer and trader groups or associations to share marketing experiences, explore potentials for collaboration and introduce their products in bigger markets.</p> <p>Corporatize the production unit of the Institute of Traditional Medicine</p> <p>Services to improve its efficiency and its competitiveness.</p> <p>Explore the potential of local value addition and test products in local markets.</p> <p>Favour dissemination of reliable market information on a regular basis</p> <p>Set up modern facility to produce medicine with a research branch + packaging.</p>	Medium/2- 3 years	MoAF Department of Forests	Regulations, technical and financial	
6.2.6. Processing of non-timber forest produce	<p>Facilitate collection, safe harvest and processing to value added products from non-timber forest produces.</p>	Medium			

6.3. SERVICES						
6.3.1. Sustainable tourism						
	At the country level: Review current method and assess alternative options. Design a system to calculate component parts as well as overall tourism contribution to GDP. Make recommendations for more policy-oriented data . Make recommendations to set in place a tourism accounting group for generating data and formulating related policy recommendations. Fully collect and publish the basic tourism statistics reported in the UNWTO's Compendium of Tourism Statistics.	Medium /initiate early 2012	TCB, NSB	Consultancy	In terms of addressing each of these actions, the TCB is currently in on-going dialogue with Dr Sarah Divisekera from the Centre for Tourism and Services Research at Victoria University, Melbourne, Australia.	\$170,000
6.3.1.1. More accurately measure annual earnings generated by Bhutan's tourism sector in order to improve policies	At the Dzongkhag level: Estimate total tourism-related spending in four Dzongkhags, (agricultural produce, labour, local transport, accommodation, retail and handicrafts). Mapping of supply chains and a standardized methodology will be prepared. Assess the number and type of local jobs –direct and in direct- created within the Dzongkhags.	Medium	TCB, NSB, civil society	Consultancy, including participation officials Dzonghags and TCB		\$ 120,000
6.3.1.2. Promote a deeper understanding of sustainable tourism in Gvt. line agencies and senior officials at Dzongkhag level	To roll out tailor-made training programmes for: (1) secretaries and ministers, (2) directors of line departments and senior officials at the Dzongkhag level, and (3) front-line staff from the public and private sectors.	High /initiate mid 2012	TCB , NSB	Training and technical assistance	UNCTAD Train for Trade programme has developed a methodology for such training. Possible involvement of UNCTAD.	



<p>6.3.1.3. Develop new tourism products, experiences and destinations</p>	<p>Review the policy, regulatory and enabling environment related to product development.</p> <p>Strengthen tourism-related supply chains and backward linkages to the domestic economy.</p> <p>Assess the demand from hotels/restaurants and profile demand assuming target of 100,000 visitors per year.</p> <p>Review handling, packaging and processing and document steps to be taken to promote more hygienic and presentable products.</p> <p>Assess the institutional environment for strengthening market linkages and make recommendations</p> <p>Prepare with the Tarayana Foundation a TOR for a feasibility study for the production of pickles, jams and smoked fish.</p>	<p>Medium/initiate 2012</p> <p>Medium/late 2012</p>	<p>TCB/MoAF, BCCI/ABTO, NEC</p>	<p>Consultancy</p> <p>Study</p>	<p>The UNWTO will contract a consultant to draft a destination development / tourism master plan</p> <p>The MoAF Agricultural Marketing Services 2009 “Demand Analysis of High-End Hotels in Thimphu” is a great start but probably needs updating; there is also a need to look at non-agricultural products and the like in the non-perishables sub-sector.</p>	<p>\$65,000</p>
<p>6.3.1.4. Reduce carbon footprints</p>	<p>Consultancy required to develop a carbon footprint reduction strategy and implementation.</p>	<p>High/ implementation mid-2012</p>	<p>TCB, NEC</p>	<p>Consultancy, including awareness workshop</p>		<p>\$150,000</p>
<p>6.3.2. Information and Communication Technologies</p>						
<p>6.3.2.1. Document and raise awareness of Bhutan as an ITeS destination</p>	<p>Identify &amp; confirm ITeS niches for Bhutan: low end service delivery and data centre hosting &amp; other opportunities? Substantiate &amp; document advantages. Hire high profile firm or entity with ITeS expertise to do assessment of Bhutan as an FDI destination for ITeS.</p> <p>Develop marketing plan to promote ITeS offshoring and outsourcing in Bhutan Implement marketing plan:</p> <p>Identify venues and opportunities for communicating marketing plan &amp; objectives of ITeS business plan.</p> <p>Participate in NASSCOM and other international venues to showcase Bhutan as an ITeS and FDI destination.</p> <p>Get Bhutan included in global market analyses.</p>	<p>HIGH/ immediate priority</p>	<p>MoEA, MoIC, MoF, Foreign Affairs, DHL, BCCI/ICT Association of Bhutan</p>	<p>Market research</p> <p>Marketing plan</p>	<p>Contract international marketing firm with expertise in this area.</p>	<p>USD 250-500K for developing the ITeS marketing plan.</p> <p>\$1-2 M for implementing &amp; participating in global venues, contracting ITeS marketing firms .</p>

<p>6.3.2.2. Enhance the attractiveness of Bhutan as an FDI destination for ITeS providers &amp; investors</p>	<p>Continue to provide incentives to foreign firms to establish themselves in Bhutan in general and in the IT Park in particular.          Include this as part of the ITeS marketing plan. for the IT Park and other ITeS opportunities          Link marketing of IT Park to the marketing on the Education City – they are mutually supporting endeavours and equally attractive to potential investors and IT Park occupants as they play off one another.          Make special provisions for facilitating transit through customs, including facilitating transit of goods and to a lesser extent services across the border with India to facilitate construction, trade in physical goods and related services that may be required by the tenants of the IT Park and of the Education City in particular and to facilitate fulfillment of e-trade transactions requiring the shipment and / or import of physical goods across the border.          Facilitate access to labour, especially management and technical experts. This includes facilitating the employment and residence of foreign experts to help establish, manage and operate the ITeS businesses dependent on FDI or resident in the IT Park &amp; the Education City.          Continue to provide training incentives to prepare Bhutan graduates for the ITeS and related business and technical sectors.          Continue to align formal education and vocational training services with the needs and circumstances of business in general and of the ITeS sector in particular.</p>	<p>HIGH/ immediate priority</p>	<p>MoEA, DHI, Ministry of Education, MoIC, MoF (Revenue &amp; Customs Dept.), MoLHR, BCCI/ICT Association</p>	<p>Legal and fiscal policy measures          Incentives          gather statistics on trade in goods and services to undertake cost benefit analysis of RGoB investments in ITeS and related sectors.</p>	<p>Put into place governance mechanism to oversee these efforts. MOEA, MoF and MOIC to work together          Create high-level governance mechanisms (as in the case of G2C project).</p>	<p>500K – 1 M for training incentives / year          Loss of income from customs duties but more than offset by increased employment, tax revenue and GNP contributions from ICT &amp; dependent firms.</p>
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<p>6.3.2.3. Develop the national fibre-optic network backbone</p> <p>6.3.2.4. Continue to develop state of the art broadband (fibre-optic and other) infrastructure that meets existing and near term needs</p>	<p>To complete the fibre optic network in Bhutan and connect the fibre network to all communities and their community centres (CCs).</p> <p>To continue to secure several redundant fibre optic connections to the main Internet backbone with India telecommunication service providers. To continue to seek QoS guarantees for backbone data services from Bhutan as well as Indian service providers. To continue to track market developments in ICT infrastructure and related innovations.</p>	<p>HIGH/ Immediate</p> <p>priority to ensure connectivity and QoS, essential for ITeS operations that require real-time VoIP connections.</p>	<p>MoIC, Cabinet</p>	<p>Policy measures</p> <p>National broadband policy negotiations with the Bhutan Power Corporation and other service providers</p> <p>Hire high level experts</p> <p>Work closely with ITU</p>	<p>Continued investment in time and energy of the MoIC</p> <p>ITU training and support</p>	<p>Continuation present infrastructure financing level</p> <p>Consulting fees: 250- 500 K / year on this issue</p>
<p>6.3.2.5. Connect all communities to the Internet, to promote greater community participation and to enhance the capacity of all communities to become self sufficient</p>	<p>Complete building and connecting community centres (CCs) in each of the Gewogs.</p> <p>Focus specifically on the 45 Gewogs for which funding is not available.</p> <p>Undertake study of demand for telecommunications services (or use results of universal access market study if available).</p> <p>Develop community access business plan based on demand study and on resulting marketing plan.</p> <p>Seek to integrate this with activities that promote using the Internet for marketing local skills and resources and especially local businesses, such as local crafts and local and community based tourism (see some of the other projects or activities recommended below).</p> <p>Integrate with activities of the Education City project: distance learning.</p>	<p>HIGH/ Immediate</p>	<p>MoIC in consultation with Bhutan Power Corporation, Bhutan Telecom and other service providers.</p>	<p>Construction: Build community access centres close to fibre optic termination points</p> <p>Telecommunication to link community access centres to fibre</p> <p>Awareness-promotion activities</p> <p>Training activities</p> <p>Develop G2C service counter concept</p>	<p>Japanese electrification project may be of assistance</p> <p>TA for marketing, business &amp; training plans</p>	<p>1 M</p>
<p>6.3.2.6. Create a legal and policy environment that enables e-commerce and ICT-enabled business</p>	<p>Modernize &amp; strengthen the ICT &amp; Media law, and regulatory framework by redrafting the I&amp;C&amp;Media Act of 2006.</p> <p>Review the intellectual property rights provisions under law.</p>	<p>HIGH</p>	<p>MoIC</p>	<p>Review and rewrite by legal experts</p>	<p>Tender for TA for legal expert in telecommunications, ICT law, e-commerce, intellectual property rights, etc.</p>	<p>100 – 500 K</p>

<p>6.3.2.7. Enhance the efficiency and transparency of Govt. procurement and enhance access to government tender opportunities for SMEs. Promote e-commerce in government and beyond. Encourage SMEs to modernize</p>	<p>Automate procurement: Undertake a business process analysis (BPA) of the procurement process. Re-engineer the procurement process accordingly to make best use of automation. Set procurement policies: all ministries have to go to e-procurement by a certain date, etc. Do pilot project. Raise awareness among SMEs and train SMEs to better understand e-procurement to them. Tender the operation of the e-procurement service on PPP basis (if possible).</p>	<p>HIGH/2013</p>	<p>MoF, all RGoB ministries &amp; agencies, BCCI and ICT Association of Bhutan.</p>	<p>Establish policies / Get all ministries / Awareness promotion / Training programme / Incentives / Develop pilot (on tender basis) / Test / Tender implementation</p>	<p>Contract to consultant / Cost of server platform</p>	<p>150,000 / year over 3-4 years. "Start small" and grow from there.</p>
<p>6.3.2.8. Nurture Bhutanese entrepreneurs in the ICT sector, develop the Bhutan Innovation and Technology Centre (BITC) and the Thimphu TechPark Private Limited (TTPL). Establish collaboration linkages with the Education City</p>	<p>Assess market opportunities for Bhutanese entrepreneurs in the local, Indian and global market place / Mobile phone app, development / Programming, marketing platforms, service provision, etc. / Develop a business incubation strategy for the BITC and beyond. / Focused on meeting local needs. / Develop a marketing plan for the BITC.</p>	<p>HIGH/Now</p>	<p>Thimphu TechPark Private Limited, Bhutan Innovation and Technology Centre, MoEA</p>	<p>MoIC, MoEA,</p>	<p>TA for planning / TA for market study / assessment</p>	<p>150 K</p>
<p>6.3.3. Health</p>						
<p>6.3.3.1. Health services</p>	<p>Corporatize the production unit of the Institute of Traditional Medicine Services to improve its efficiency and its competitiveness. / Create a medical college with Indian TA. / Finalize operational requirements for high end specialized private health facilities.</p>		<p>MoEA / MoH</p>	<p>Regulations, financial and technical</p>		
<p>6.3.4. Education</p>						
<p>6.3.4.1. Education services</p>	<p>Link the Education City to private sector, especially to the IT Park: a part of the curriculum should be in Information Technology (software programming). / Facilitate private investment in educational and vocational institutes.</p>		<p>MoE,RUB, DHI, MoIC</p>	<p>Regulations and financial</p>		