



POLICY BRIEF

FARM MECHANIZATION IN BHUTAN – TOWARDS ACHIEVING A SUSTAINABLE RISE IN FARM PRODUCTIVITY AND FARMING HOUSEHOLD INCOMES, AND IMPROVING THE INCLUSION OF WOMEN, THE ELDERLY, AND UNEMPLOYED YOUTH IN THE USE OF FARM MACHINERY

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POLICY MESSAGE

There has been strong support for farm mechanization in Bhutan over the last 20 years, mainly through Japanese grant-based funding, such as the 2KR scheme. An institutional ecosystem of state-owned enterprises, private businesses, key relevant Departments within the MoAF, and Research Centers has developed, but many vital attributes of institutional competencies remain insufficient or lacking. The following table depicts the typical constraints affecting farm mechanization in Bhutan:

FIGURE 1: FARM MACHINERY ADOPTION CONSTRAINTS IN BHUTAN

1. LAND

- Land development is difficult in Bhutan's typical hilly terrain
- Average farm sizes are small and usually feature several scattered plots that are located in diverse agro-ecological zones and topographic conditions.
- Many farm plots feature a high proportion of stony topsoil due to pre-existing local edaphic and geological conditions, plus high levels of soil erosion. Much land still requires the application of methods to prevent soil erosion, apart from the terracing that is typical of wetland rice production.
- Many Districts feature a high proportion of fallow and abandoned land that needs mechanized land clearance to become productive. That also requires alleviating the main constraints on-farm production in those localities, such as the typical lack of irrigation, and the decline in the areal extent of command areas reached by irrigation water.

2. LABOR

- Most farm labor comes from off-farm sources, e.g., hired labor or labor exchange with neighbors, as well as self-exploitation of family labor, which is not remunerated at local wage rates.
- Shortage of skilled machine operators.
- Few machines are suited to women, youth, and the elderly.

3. CAPITAL

- Limited farmers' own capital to purchase machines.
- Limited availability of subsidies and grants for machinery and limited access to loan and credit systems for machinery purchase or rental.
- Highly limited coverage of international rural development assistance projects that include support for farm mechanization.

4. FARMING SYSTEM

- Farming household demographics are skewed towards an increased reliance on female labor, in other words to "feminization," and to increasing proportions of households headed by the elderly. Changes in demography are largely driven by very high levels of male out-migration, and movements of the younger population strata out of rural settings towards urban areas, where they seek decent secondary education and employment opportunities.
- Over-concentration on rice-based cropping.
- Less concentration on maize, potato, vegetables, and other cash crops, which are mostly un-mechanized.

5. TECHNOLOGY

- Under the push towards ceasing the use of chemical fertilizers due to the move to Organic Farming, poor farm soil nutrient status has increasingly become a constraint to obtaining adequate yields. This is because the movement towards stricter organic farming systems requires farmers to apply additional material and labor inputs to produce, and then distribute sufficient organic material across their plots. Only then can farmers ensure adequate crop micro and macro-nutrition.
- Too few types of farm machinery have been adopted to date, e.g., the power tiller remains the commonest machinery type being promoted.
- Poor matching of existing crop labor needs with the type of machinery available, e.g., the seed/seedling planter, weeder, harvester and thresher are not yet widely available and being used.
- Lack of an integrated approach to the spread of extension information about machinery which is focused on the critical points along crop value chains.
- Limited availability and awareness of battery-operated machinery.

6. SUPPORT SERVICES

- Lack of machinery purchase options in Bhutan.
- Limited access to hiring services.
- Limited knowledge of MoAF extension staff about the range of machinery types that could be promoted, and a resulting lack of information and skill development made available to farmers.
- Limited maintenance support services.
- Limited training, especially for women.

The efforts to increase mechanization and reduce the drudgery of many farming tasks have not significantly impacted the core problem of the need for farmers to diversify away from their concentration on rice-based cropping patterns. Multiple challenges impede the increased cultivation of other cereal crops, such as maize, buckwheat, and barley; cultivating a greater diversity of oilseeds; and increased production across Bhutan's agro-ecological zones of a broader range of potential and high-priority vegetable crop types, such as potatoes, bulb onions and tomatoes, among many others.

The evidence available indicates that farm mechanization uptake and usage rates have helped raise farm incomes, only to a limited extent. Some of the additional income has been achieved by cultivating more significant acreages of typical cash crops, such as cardamom, carrots, ginger, and chili, plus a wider variety of potential fruit types, such as mandarins, papaya, oranges, and apples.

Some further increases in farm household income for some households derive from higher yields per unit of land area for a few crops, but for many crops yields have either held steady or else - in more cases - these yields have declined. This is likely to be attributable to those farmers who have shifted towards organic farming being unable to apply sufficient compost, or being unable to adopt other soil enrichment methods such as green manures, that would compensate for ceasing to use chemical fertilizers.

Several research studies have shown that there is a vital need to consider if and how farm mechanization can be applied to each of the principal types of tasks, that are commonly regarded by farmers as farm drudgery, that feature exceptionally-low financial returns per unit of labor expended. Dealing with those tasks through mechanization, would make agriculture more attractive as an occupation for younger people.

In other words, all the most significant labor bottlenecks that affect the value chains of Bhutan's key agricultural crops and livestock products need to be evaluated, as regards how feasibly the operations in question can be mechanized. In this effort, it is essential not to simply emphasize greater machinery uptake for land preparation using power tillers, but to assess a range of machinery types across the full diversity of major crop types. Broadened attention to other kinds of machinery is vital.

Taking the single example of rice, the seeding and transplanting is performed mainly by women, and consumes up to 20% of the labor expended during the rice production cycle. New methods of rice transplanting using machinery of various sizes, such as line planters, could reduce the drudgery the women face, make transplanting easier, and thus lead to rice farming becoming more profitable, as well as increasing the returns from the farmers' labor inputs. Other undervalued farm tasks include the dehulling of grains, the production of oils, and the milling of different kinds of flour, which account for a substantial proportion of the uptake of farm machinery over the last decade.

Figure 1 above sets out the main constraints on the adoption of farm machinery that were identified during the KSS socio-economic study, conducted in 2021 for EU-TACS on behalf of the Department of Agriculture, in connection with the RNR Strategic Vision 2040. These include limitations and issues faced in land/soil and water management, labor, capital, the farming system, technology, and support services, like the provision of maintenance and spare parts. These constraints have been assessed in order to develop complementary strategies, and to propose an ambitious program for the 13th and 14th Five-Year Plans.

The chief reason for not adopting mechanized farming that was stated by the Bhutanese farmers in the KSS study is simply the direct lack of access that farmers (especially female ones) have to a sufficient range of affordable and effective farm machinery types, compounded by a lack of awareness regarding the available types of machinery, and difficulties due to the remote location of farms that are poorly served by all-season roads.

Farmers remain poorly served by the existing set-up of institutions, and by the weak linkages along the value chain for each respective type of machinery. Particularly severe deficits exist with regard to the shortage of specialist operators; insufficient awareness and training; and the lack of machinery repair services and spare parts. This was the case both for non-mechanized farmers using traditional methods, and for farmers who already had experience with mechanized farm operations. Other constraints include the small size of typical land holdings, which makes it uneconomic to operate machinery; the unavailability of loans or subsidies; and the difficulties experienced by farmers in acquiring the set of knowledge and of skills, that would enable them to manage each type of machinery, and then to shift their farming practices away from traditional subsistence methods.

The RGoB needs to encourage and facilitate the private sector to link effectively with MoAF, state-owned enterprises, international development assistance projects, and research organizations, to provide a range of farm machinery types that are suited to different land capability classes. Farm mechanization strategies need to focus on crucial land management treatments where there is a significant shortage of labor, and to promote machinery that is clearly suitable for women farmers, young people, and aging households. Efforts need to be made to ensure that machinery imported into Bhutan complies with the needs of women farmers.

DRIVERS OF CHANGE FOR EXPANDING FARM MECHANIZATION

FOOD INSECURITY

The KSS socio-economic study conducted for the 2021 EU-TACS project to promote farm machinery asked several questions about household self-sufficiency in relation to the respondents' own annual harvests. 87% of farmers stated that they had not faced food insufficiency in the past 12 months. 8% of households were self-sufficient from their own harvests for 11-12 months a year, while 20% were self-sufficient for 9-10 months, and 14% were only self-sufficient for 3-4 months. Respondents mentioned the following as being the most significant constraints on the achievement of improved levels of crop production: human/wildlife conflict (66%), water scarcity (53%), labor scarcity (43%), the incidence of pests and diseases (39%), availability of farm machinery (31%), market access (24%), availability of pesticides and herbicides (15%), and small size of farmland (11%).

In 2021 the DoA prepared a document titled *"A Status Report on Self-Sufficiency and Dietary Energy Supply of Food Crops in Bhutan"*. This shows that over the past 14 years, the average national self-sufficiency ratio (SSR) for rice has been 47%. This is significantly lower than the current national target, with imports increasing in recent

years. For maize, the SSR was 99% in 2006; by 2019, this had declined to 72%. These declines are principally due to damage from wild animals, reduced soil fertility, reduced command areas under irrigation schemes, droughts, pests and diseases, and weed infestations. Wheat had declined from an SSR of 104% in 2006 to 11% in 2019, mainly due to a reduction in the area under wheat production.

Farmer households belonging to each socio-economic strata experience their own characteristic levels of food insufficiency. Overall, however, the KSS Study observed that 98% of farming households have been forced to purchase from the market to cover gaps in basic staples, vegetables and oils.

ACTIVITY	Low-altitude	Mid-altitude	High-altitude
Ploughing	3.8	5.2	2.6
Puddling by power tiller	4.1	0.0	0.0
Puddling by ox	3.9	3.4	2.0
Mechanical threshing	2.3	3.1	1.4
Irrigation before ploughing	1.6	1.7	1.5
Bund-clearing	5.1	7.3	3.8
Grass-cutting	5.2	4.9	3.0
Crop guarding	10.5	11.0	5.0
Main field ploughing	2.9	5.5	3.8
FYM Transportation	4.2	5.4	6.5
Irrigation for puddling	7.2	1.9	2.5
Puddling (manual)	1.6	5.1	3.5
Transplanting	12.8	13.5	13.2
Weeding	9.9	13.4	15.0
Irrigation	4.0	7.3	3.5
Harvesting	7.2	11.8	11.0
Stacking and threshing	10.8	9.7	8.0
Transportation	4.2	4.8	2.0
Subtotal	102	115	88
Total (incl. nursery raising)	132	146	119

FIGURE 2: LABOR REQUIREMENT FOR RICE PRODUCTION IN THREE ALTITUDE ZONES (in person-days/acre) Source: Farm Mechanization Study, EU-TACS, AMC/PPD/MoAF, 2022

The capability of those farmers having more land and resources available with which to produce dependable yields for sale on the market will remain weak unless the constraints on increasing the levels of crop production are removed or reduced. A comprehensive and long-term set of strategies is required to raise the national SSRs for all targeted crop types. These will include the introduction of new farm machinery which is capable of reducing damage from wildlife; reducing the impacts of water stress and drought; and effectively managing pests, diseases, and weeds.

LOW LEVELS OF MECHANIZATION are affecting Bhutan's key food crops, such as rice, maize, potatoes, and vegetables. Most farm operations are either performed manually or using animal power. The history of mechanization in Bhutan over the last two decades indicates that the most significant emphasis has been placed on land and seedbed preparation for rice, spearheaded by the JICA 2KR grant program. The KSS study carried out with support from the EU-TACS project (2021) has identified labor needs regarding key activities for crops such as rice, maize, potato, chilies, and various vegetables such as cabbage, cauliflower, tomato, broccoli, and bulb onions.

The study found that, taking the example of rice production, several key farm tasks require significant labor inputs. **However, to date, RGoB and other responsible institutions have paid little attention to supporting the mechanization of those operations, such as transplanting, weeding, harvesting, threshing, stacking, bund-clearing, grass-cutting, and crop guarding.** During the study, various farm machinery types for use along a range of crop value chains were identified, and mechanization was recommended in those value chains where heavy labor requirements exist.

A Twelve-Point Guide to Selecting Farm Machinery was developed that lists the following machinery selection criteria:

1. *Lightweight and easily manoeuvrable in tight spaces, such as narrow hill terraces and polytunnels.*
2. *Small, practical, and competitively-priced machines.*
3. *Versatile, and operates in a variety of slope and terrain conditions.*
4. *Low power/low fuel consumption and, where possible, battery-operated machines.*
5. *Ability to adjust sowing distance and furrow depth.*
6. *Excellent stability for better operator safety.*
7. *Small size with attachments useable with small and medium-power tractors and Monoblocs; or manually operated machines.*
8. *Suitable for different crops in small plots, stony soils, hills, and hard-to-reach areas.*



9. *Wheels that conform to ground undulations, providing a stable transplanting depth regardless of surface irregularities.*
10. *Easy operation and maintenance characteristics with limited need for spare parts.*
11. *Gender-and age-friendly.*
12. *Supportive of food security and reduced female drudgery in rice dehulling, food oil production, and flour production from cereal crops.*

EMERGING TRENDS IN MECHANIZATION Farm mechanization in Bhutan has focused mainly on rice-based cropping systems in flatland areas in valley bottoms, as well as in the south of the country near the Indian border, involving the use of tractors and power tillers. **Despite the increased use of rice machinery, Bhutan has failed to meet its rice self-reliance targets during the previous five-year plans.** Farmers have mainly adopted power tillers (31%) and rice dehullers (11%).

However, **transplanting, weeding, stacking, threshing, and crop guarding require significant labor during the rice crop cycle. Farmers lack access to new technologies to alleviate the constraints imposed by these labor-intensive activities.** The Figure 3 (previous page) depicts some examples of weeders, harvesters, and threshers for small and medium-sized farms.

Under the global pressure to address greenhouse gas emissions reductions, there has been a push towards the adoption of farm machinery that uses forms of “clean energy”, and towards precision agriculture that relies on navigation systems, GPS, and robotics to improve productivity. For example, irrigation-controller water delivery systems using Android devices, and GSM for efficient water and power use, have already been piloted in Bhutan.

LABOR SHORTAGES are a significant issue in the management of Bhutan's farms. Out-migration of rural youth for education and jobs, plus male household members looking

for off-farm work, have contributed to the labor shortage in agriculture. Rural labor shortages have helped to generate a nexus of farm management issues: the feminization of households means that an average of 32% of rural households now have female heads (more than 60% in some districts), and that women now provide over 53% of all farm-related labor in many Districts.

The proportion of households headed by the elderly is also increasing, driven in part by youth and male out-migration. More farmland is turning into plots of uncultivated fallow-



land, due partly to the inability of women and elderly household members to cultivate their entire farm, and partly to an increase in the number of abandoned farms. The decrease in cultivation area affecting many farms results in reduced crop production, contributing to food and nutrition insecurity, and to lower-than-planned Self-Sufficiency Ratios for Bhutan's key strategic crops.

Labor shortages are the second most crucial factor in the increasing proportion of fallow land on farms (see the Figure 4 on previous page from the KSS study), with human/wildlife conflict being the main reason; both these factors would decrease in importance with improved farm mechanization. The fact of so much farmland standing idle significantly reduces crop production at the district level.

Off-farm sectors such as agro-processing, equipment manufacturing, and input supply businesses appeal to a substantial share of the rural population, especially unemployed youth. Social factors such as the increased participation of women in farming, the drudgery of farm work, and status issues relating to manual work, represent additional reasons to mechanize.

The conversion of fallow land on farmland to agricultural cropping patterns will require piloting and demonstrating biomass clearance machinery for low and high biomass levels, as will the use of machinery to make economical use of waste materials, e.g., machinery to produce charcoal, manufacture fuel briquettes, and to fabricate building bricks. These have been described in a policy brief on the conversion of fallow land.

POLICY IMPLICATIONS AND SECTOR REFORMS

STRUCTURAL CHANGE will be needed to implement the proposed Farm Mechanization Strategies suggested in the EU-TACS study (2021). A Working Group for the promotion of farm machinery should be set up to carry out the following tasks: policy development, strategic frameworks, investment planning for key thematic subject areas, and program/action plan designs. Amongst the highest priorities, a Working Group must lead a major initiative in building human resources and capacity-building for a wide range of institutions, through mechanisms such as: (1) conducting joint studies that build up farmer knowledge and researcher information bases; (2) supporting the inclusion of mechanization within primary and secondary education; (3) building up a nexus of competent institutions that attend to all aspects of the farm mechanization process for a targeted set of crops, and (4) an ambitious program of formal and informal farmer training, as well as (5) a major effort to build up the skills of MoAF/DoA extension staff in all aspects of farm machinery promotion, operations, and maintenance.

The key stakeholders for this group would be PPD, DoA (key concerned divisions), AMC, FMCL, target Dzongkhags, DLG, and private-sector firms. The Working Group would also address visions, mandates, stakeholder roles, new processes and procedures, and would develop guidelines on behalf of the Ministry.

POLICIES A Policy White Paper that defines the Farm Mechanization Strategy up to 2040 should be prepared to support sustainable increases in crop productivity and farm income levels by introducing improved farm mechanization.

STRATEGIES To ensure this, a ‘ten-point farm mechanization strategic plan’ is suggested:

FIGURE 5: PROPOSED ‘TEN-POINT FARM MECHANIZATION STRATEGIC ACTION PLAN’

- P1.** Establish a ‘10-Year Farm Mechanization Investment Plan’ to cover the 13th and 14th RNR Master Plans for 2023-2033.
- P2.** Crop-specific mechanization priority plans for crucial commodity value chains such as rice, maize, potatoes, and vegetables.
- P3.** Specialized equipment for small and marginal farmers involving manufacturing by local SMEs plus the targeting of relevant imported machinery.
- P4.** Land development of landscapes that are currently unsuited to farm mechanization (e.g., because of narrow terracing of sloping terrain), plus the removal and economic use of biomass from fallow land and the establishment of machinery-friendly farming systems.
- P5.** Promotion of a shared platform for farm mechanization networking for all concerned stakeholders (from AMC/FMCL/Dzongkhag administrations), manufacturers, suppliers, hiring companies, O&M service companies, and end users).
- P6.** Improved R&D with a focus on different farm scales, gender-neutral machinery and clean-energy-driven machinery.
- P7.** Promotion of climate-smart mechanization, clean-energy-driven equipment, and equipment for managing farm waste.
- P8.** Innovative finance, plus other incentive actions aimed at promoting farm mechanization, is to be developed following a study to identify mechanisms for grants, subsidies, cost-sharing, loans, and hire purchase targeting women’s groups, youth groups, cooperatives, and farmers producer groups. This will include assisting Dzongkhags, Gewogs and Chiwogs in promoting suitable farm machinery through the environment and economic grants program and other financial mechanisms, to be advanced by MoAF and DLG during the 13th Five Year Planning period from 2023 to 2028.
- P9.** Skills upgrading for service providers, machine operators, and farming households directed at the development of a modernized program for farm machinery promotion through innovative education, TVET, practical training and awareness methods.
- P10.** A framework for developing innovative ‘Farm Machinery Hiring Business Models’ via a range of stakeholders, including the private sector, to be advanced by MoAF during the 13th Five Year Planning period (2023-2028). A ‘Farm Machinery Supply and Hire Network’ should be established at the national level that covers all Dzongkhags.

PROGRAMING Under the ‘10-Year Farm Mechanization Investment Plan’ it is recommended that the following Key Result Areas (KRAs) should be included in the next two five-year plans (2023-2033), to address the ten above-mentioned key Action Points:

FIGURE 6: '10-YEAR FARM MECHANIZATION INVESTMENT PLAN'

KRA-1. Total farm mechanization along essential value chains is piloted and demonstrated in all 20 Dzongkhags (e.g., for rice, maize, potatoes, key vegetables), ensuring that land preparation, seeding/planting, plant protection, irrigation, harvesting, and post-harvest/ agro-processing are addressed in an integrated approach to farm mechanization.

KRA-2. Land development for Land Capability Classes II, III, IV is demonstrated and up-scaled in all 20 Dzongkhags (e.g., new and repaired, narrow terracing on undulating, rolling, and hilly landscapes) and narrow bench terraces in orchards/single platforms on hilly and mountainous landscapes. This will enable mechanized farming to take place in areas currently not suited to mechanization through the introduction of terrace-making equipment suited to sloping land. This should include mini-excavators, spider excavators for land management, and lightweight machinery suitable for narrow terraces and polytunnels.

KRA-3. Innovative small and lightweight farm machinery suitable for use on undulating, rolling and hilly landscapes in all 20 Dzongkhags should be demonstrated to, and upscaled with, farmer producer groups, contract farmers, cooperatives, and commercial farmers.

KRA-4. Innovative farm machinery is made available that is suitable for flat terraced/paddy landscapes (Land Capability Class I) with a rice-based cropping pattern to be demonstrated and upscaled in all suitable Dzongkhags (e.g., along the southern border with India and in flat valley bottoms), covering farm equipment such as tractors, tillage equipment, seed, and transplanting, fertilizing equipment, harvesting equipment, and haying and forage equipment. This will support the aim of self-sufficiency in rice production and food security.

KRA-5. Piloting of clean-energy-driven farm machinery should take place in all 20 Dzongkhags, including tractors and power tillers for rice, to reduce reliance on fossil fuels and take advantage of the hydropower currently available in Bhutan. The requirements for food processing machinery for farming communities and households must not be neglected, and a strong emphasis must obligatorily be placed upon meeting the needs for machinery for flour milling, dehulling and edible oil production.

KRA-6. Education, TVET, practical training, and awareness-raising learning methods developed and implemented under a national-level Master Plan for Farm Machinery Learning. These methods would target private-sector farm machinery manufacturers, suppliers, hiring companies, equipment operators, O&M contractors, and end-users of farm machinery.

HUMAN RESOURCES AND TRAINING Capacity-building activities (to be addressed under KRA-6) will be required for farm machinery supply businesses, farm machinery hire businesses, private machinery operators who would provide skills that ensure machinery is well-maintained and operates at full capacity, and focus upon the end-users of newly-introduced farm machinery. This should be achieved through:

- **Developing a practical farm machinery awareness and training program** that is gender- and age-sensitive for rural/farming communities, focusing on women, the elderly and unemployed youth.
- **Developing a set of TVET courses on the O&M of farm machinery** targeting employees of farm machinery suppliers and interested unemployed youth.
- **Creating a Farm Machinery Studentship Program** for rural youth (both men and women) to

fund youth access to trade fairs, internships in farm machinery-related private businesses and government agencies; and to provide apprenticeships.

- **Developing a private-sector awareness and training package** for farm machinery suppliers and farm machinery hiring companies/firms to expose them to new innovative farm machinery, including machinery that runs on “clean energy” (i.e., is battery-powered).

MONITORING AND EVALUATION A **Monitoring**, Evaluation and Learning Unit established at either AMC or FMCL would assist in best-practice development and defining the most appropriate types of farm machinery to be introduced. The unit would aim to:

- **Monitor and report on farm machinery research and monitor and report on the use of farm machinery** in Bhutan.
- **Review the effectiveness and efficiency of the existing farm machinery supply, hiring and subsidy program** at MOAF, and suggest improvements to the current business model.
- **Conduct case studies of farm machinery piloting** involving key commodity value chains (rice, maize, potatoes, vegetables) with a focus on the use of farm machinery by women and the elderly.
- Conduct **comprehensive socio-economic studies of the potential impacts of different types of farm machinery** when introduced along value chains for key commodities such as rice, maize, potatoes and vegetables.
- **Examine the logistics and supply chains of principal farm machinery types through local and international procurement**, and advise on mechanisms to improve the procurement system.
- **Study of key commodity value chains regarding labor needs in a ‘with machinery’ and ‘without machinery’ scenario.**
- Conduct a **study on the impact of farm machinery expansion in Bhutan on the country’s social, economic, and environmental conditions.**
- **Prepare Integrated Annual Reports on progress made to introduce all the relevant types of farm machinery** on behalf of the MoAF, including data collected through AMC, FMCL, ARED, Dzongkhag administrations, international agencies/NGOs, and the private sector.



Policy Briefs

Policy Briefs provide highlights on development issues in the renewable natural resources sector in Bhutan. The Policy Briefs provide information on topics such as governance, livelihoods, natural resources and sustainability in an accessible way for decision makers and donors.

Many of the Policy Briefs are based on evidence-based statistics available at the Ministry of Agriculture and Forests together with Research Studies carried out by the Policy and Planning Division at MoAF, and are often a synthesis of study reports prepared by international experts on behalf of donor agencies assisting the MoAF in Bhutan.

The **EU Technical Assistance Complementary Support Project** (EU-TACS) has the aim of contributing to the sound implementation of the EU-Bhutan bilateral development cooperation strategy. Since its inception in March 2019, the EU-TACS project has provided technical assistance focusing on rural development, climate change response, and local government plus fiscal decentralization. EU-TACS has also supported the implementation of two EU sector reform budget support contracts for the MoAF and the DLG. The assistance has included consulting services, studies and communication-related inputs, to provide stakeholders with direction for capacity-building, dialogue and policy change in key development themes and subject areas.

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