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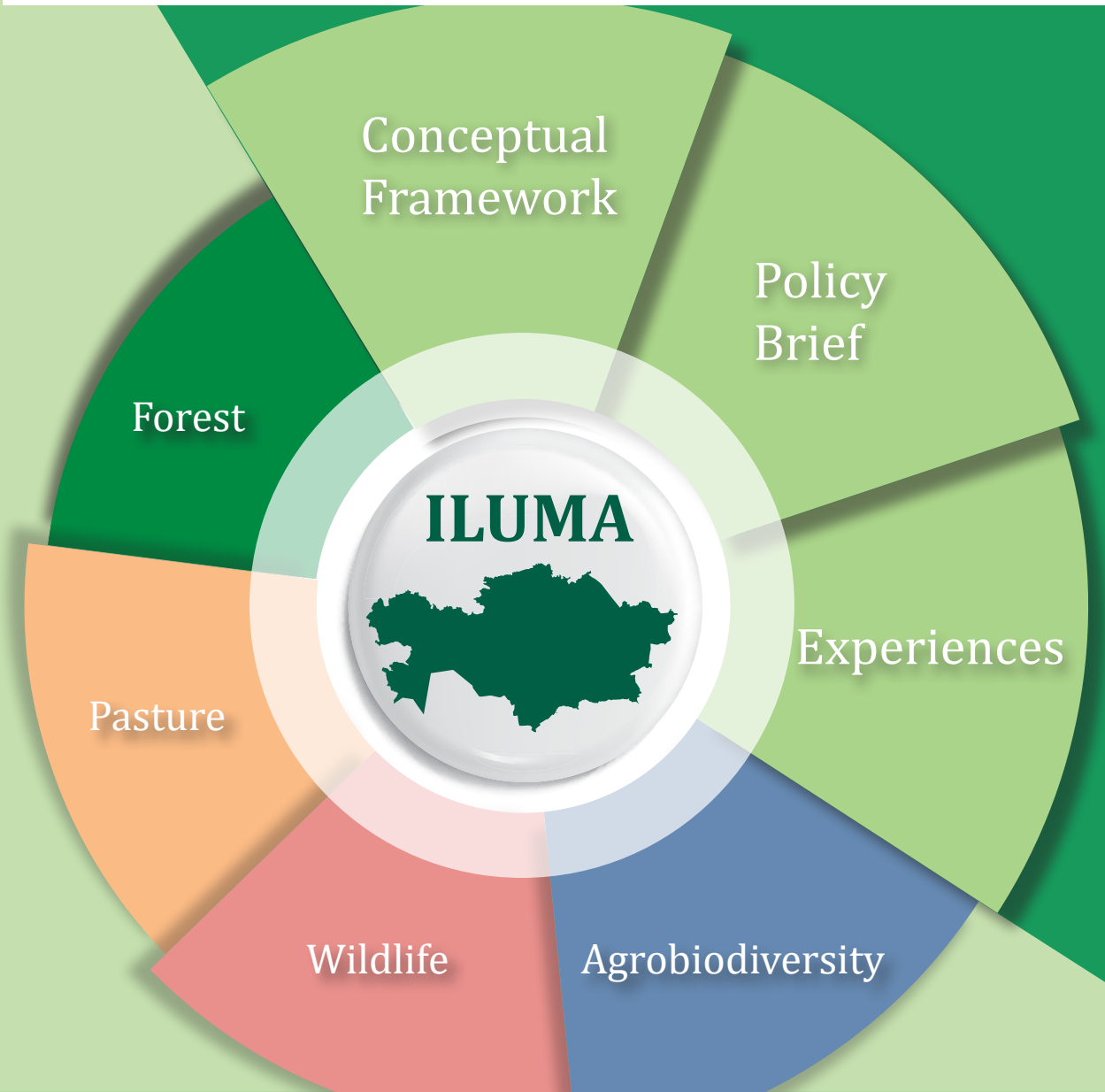
Integrative Forest Management in Kazakhstan for Integrative Land Use Management Approaches (ILUMA)



Integrative Forest Management

for Integrative Land-Use Management Approaches (ILUMA)

Forest Management

Private Afforestation in Kazakhstan

1.What is this land use practice about?

Covering an area of 2.724 million square km[2], the Republic of Kazakhstan possesses the ninth largest territory in the world[1]. Kazakhstan is considered as a sparsely forested country, in relative values, with 4.7% of forest cover of the country's total territory. Forests are distributed unevenly and represented mostly by saxaul (49.6%), shrubs (24.1%), coniferous trees (13.1%), and broadleaved woodland (12%)[2].

In the Soviet period, forests of Kazakhstan predominantly had a nature protection function, recreational value, while saxaul was used to fix sandy soils and for fuelwood[3]. Nonetheless, the government policy at the time stipulated that the forest sector supplies raw materials to meet demands of wood-processing industry[4]. By 1989 the supply of raw material reached up to 85% of domestic wood processing sector's demand[5].

In 1991, after the independence the alteration of political system was followed by changes in public administration structures and processes. New modalities in the economy and governance conditioned irrelevance and discontinuation of the earlier existing government institutions. Shrinking public financing of the forestry sector resulted in an inadequate performance of forest management activities, diminishment of forest tree nurseries, which contributed to a decrease of the forest cover. In the period from 1993 to 1997 the forest reproduction volumes in Kazakhstan declined by almost 90% . By some accounts the ban on final felling from 2003 to 2014 significantly contributed to the degradation of coniferous forests in Kazakhstan.

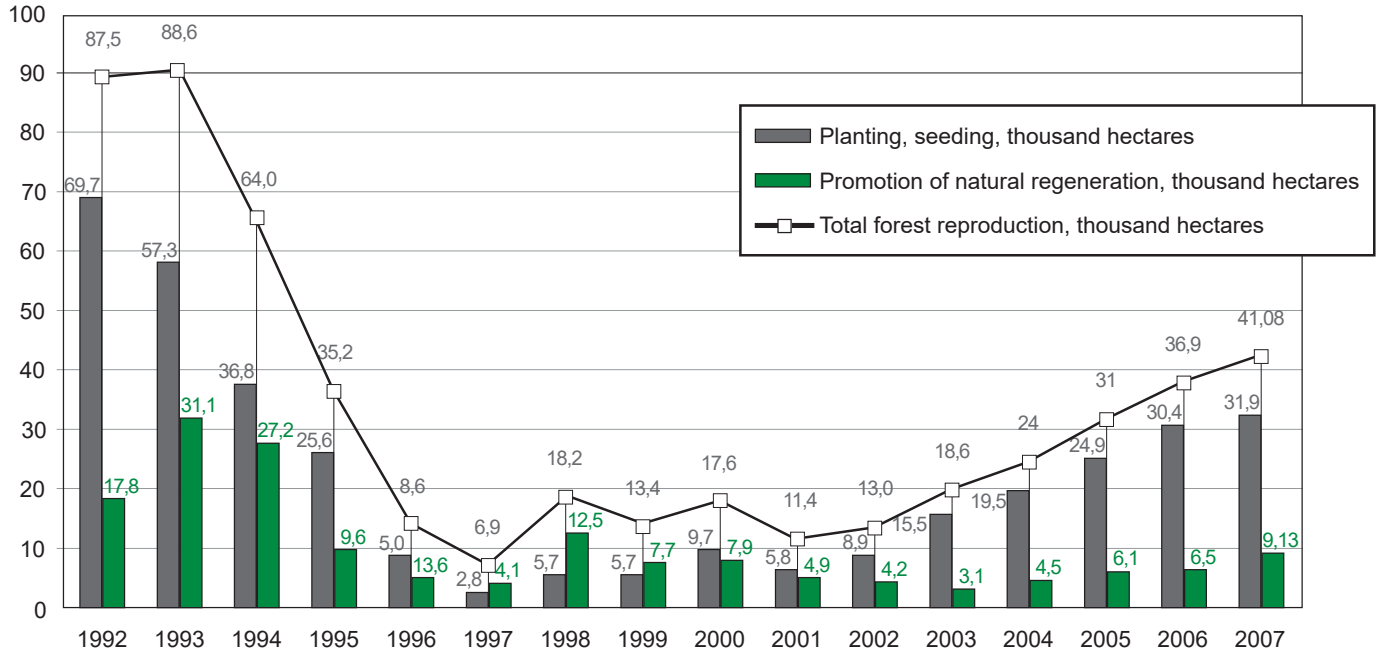


Figure 1: Dynamics of Forest Reproduction Works in Kazakhstan for the Period from 1992 to 2007
Dr. D. Sarsekova, Reproduction of Forests in Kazakhstan ("Воспроизводство лесов в Казахстане")

[1] Kazakhstan territorial official information: https://www.akorda.kz/en/republic_of_kazakhstan/kazakhstan

[2] State Statistic Department data: https://stat.gov.kz/ecologic/Forest_and_other_wooded_land?lang=ru

[3] The Kazakh Soviet Socialist Republic, www.booksite.ru;

[4] Karibaeva K., Study on Current Status, International Cooperation, Development Strategy of Forestry and Best Practices of Forest Management in Greater Central Asia (2016—R22)

[5] Vladimir Rezanov, September 2013.

[6] Dr. D. Sarsekova, "Воспроизводство лесов в Казахстане".

[7] Vladimir Rezanov, September 2013

With the national economy stabilizing, in the 2000s the country's leadership expressed political will to pursue the "greening" objectives and the government have been allocating gradually increasing volumes of funding to achieve the objective, including through the development of the forestry sector. The required legal frameworks were established through the enactment of the Forest Code in 2003, which determined the concept of private forest ownership. One of the key principles of forest governance system in Kazakhstan is based on the division of the country's forest fund into the state and private ones[8]. Thus, the national forest legislation provided legal grounds for private afforestation development. In addition, in 2012 the Government approved a decree that aimed to support the development of private afforestation by co-financing of the tree plantation costs to facilitate the involvement of private sector in afforestation. However, the implementation of the subsidy measure has not yet been fully operationalized in practice.

As the government support mechanisms were needed to be elaborated, the Forest Committee of the Ministry of Agriculture of the Republic of Kazakhstan[9] and GIZ agreed that the latter provides technical expertise to analyze frameworks necessary for the implementation of private afforestation. It was determined that to evaluate the potential for the private sector's engagement in afforestation, collecting of relevant data was necessary.

As a result, in 2016 six pilot afforestation plots with various tree species in various geographic areas of Kazakhstan, representing different climate conditions, were established with technical and financial support of GIZ, for an estimated period of not less than 3 years, to serve as a source of the required technical and financial data and a source of information for further enhancement of the policy frameworks.

2. Cornerstones

Kazakhstan's relatively limited forest resources and the growing economy underlie the increasing demand for wood-based products. Involving the private sector in the unfolding efforts to enhance the forest cover of the country, and thus facilitating the wood production, is anticipated to contribute to the subsequent development of the private forest fund. A study by the World Bank (2018) shows that as of 2019 only approximately 700 ha of forests were in private hand.

The piloting of private afforestation options at small scale in the period 2016-2019 allowed confirming or disregarding certain assumptions regarding environmental, technical and financial-economic aspects and making projections related to the implementation mechanisms for private afforestation subsidy program. The piloting allowed considering a number of important factors including but not limited to:

- Incentives for private sector to involve in private afforestation;
- Criticality of relevant and reliable forest management technical data in various contexts;
- Costs and benefits of private afforestation;
- Capacities of key stakeholders involved in the forest use.

Considering the above, the below elements are identified as the cornerstones of the private afforestation experience in Kazakhstan:

1. Developing Government Subsidy Program Implementation Mechanisms
2. Piloting Private Afforestation
3. Land Availability and Economic Aspects of Private Afforestation

3. What are possible ways to implement private afforestation, linked to ILUMA dimensions?

The below matrix represents a description of GIZ-supported interventions in the context of respective cornerstones.

[8] Draft Master Plan of the Republic of Kazakhstan Forest Sector Development until 2030

[9] Since June 2019 the Forest Committee is under the Ministry of Ecology, Geology and Natural Resources.

Cornerstone 1: Developing Government Subsidy Program Implementation Mechanisms

GIZ Experience for Implementation	The national government declared its readiness to establish and develop afforestation projects, as well as to support private investors through targeted initiatives. At present, the number of private forest owners in Kazakhstan is small. In the future, however, the private forestry sector should develop. The experience of the GIZ-supported piloting project has demonstrated a growing interest in afforestation among small private landowners, especially those involved in agriculture. However, large-scale private afforestation projects are meant to contribute to increasing the country's forest cover and carbon sequestration. Increased afforestation resulting from private afforestation, among other things, can help Kazakhstan meet its GHG emission reduction targets. This can be used to leverage international climate finance, which in turn can provide an initial impetus for large-scale afforestation efforts. Availability of stable and efficiently functioning government support mechanisms is an important prerequisite for Kazakhstan achieving the above benefits, especially at the initial stage of development of private forestry projects. In parallel to improving the overall investment climate, the government is committed to effectively implementing the state support program for private afforestation. After the amendments to the Forest Code in 2012 regarding state support for private afforestation, the main policy instrument is the Rules for reimbursement of plantation costs[10], issued in 2015. The Rules lay the ground for government-incentivized private forest sector development with the intention of reimbursing up to 50% of the costs for establishment of tree plantations. However, due to a lack of clear definition of the implementation process and relevant reliable and plannable budgeting at the national level, no afforestation project has been approved by 2021.
	Reference material used and recommended: - Forest Code of the Republic of Kazakhstan from 8.07.2003 No. 477-II (with amendments and additions as of 01.01.2021)[11] - The Rules for reimbursement of expenses for the establishment and cultivation of plantations of fast-growing tree and shrub species, the creation and development of private forest nurseries, approved by Resolution of the Government of the Republic of Kazakhstan from August 1, 2012 No. 1014 - Draft Concept State Forest Policy until 2020[12] - UNIQUE Forestry and Land Use GMBH reports[13]

[10] The Rules for reimbursement of expenses for the establishment and cultivation of plantations of fast-growing tree and shrub species, the creation and development of private forest nurseries, approved by Resolution of the Government of the Republic of Kazakhstan from August 1, 2012 No. 1014: https://online.zakon.kz/Document/?doc_id=31238477#pos=1;-16

[11] Forest Code of the Republic of Kazakhstan from July 8, 2003 No. 477-II (with amendments and additions as of 01.01.2021): https://online.zakon.kz/document/?doc_id=1041486

[12] Draft Concept State Forest Policy until 2020: https://online.zakon.kz/Document/?doc_id=30395284

[13] UNIQUE Forestry and Land Use GMBH

Key Elements of the Experience	Guiding Principles and the Way How They Are Related to ILUMA Dimensions	
Operationalization of the government's private afforestation subsidy program through adaptation and enhancement of the existing provisions and norms of the relevant legal and regulatory documents based on the analysis and the findings of the piloting		• Commercial forest management capacity needs to be developed systemically, as the relevant expertise is evaluated to be limited only to some companies/experts in the country;
		• Plantation monitoring after certain period (i.e. one vegetation period) must be considered to measure progress of the project. Possible criteria could be survival rate, accordance of project implementation to the submitted design, etc.; • Additional monitoring could be stipulated for by the regulations and may require periodical submitting of photo documentation; • Forestry administration should consider developing a standard afforestation project template (типовой проект) to minimize subjective factor and facilitate participation; The rules regulating main aspects of the subsidy program must be aligned to an overarching objective to embed its activities in the current forest policy context; • The objective of the subsidy program must be formulated in a way that it defines main target groups for the incentives and provides direction for the program's implementation; • It is advised that the rules clearly stipulate those eligible to apply for government subsidy, including not only individuals and legal entities, but also municipalities. This can facilitate regional development; • The rules should stipulate what activities specifically could be subsidized to eliminate potential misunderstanding between donor and beneficiary, i.e.: and preparation activities, planting material and planting work, fencing material and fence installation work, irrigation, quality enhancing activities such as pruning and thinning, weed control. • The rules must stipulate proceedings in cases of force majeure impacting the subsidized tree plantations; • The subsidy application and implementation regulation should cover 3 years' period – the period of plantation establishment and securing it; • The regulation must clearly list the eligibility criteria, including: - Who is eligible for a subsidy? - What activities can be subject of the subsidy? - Period of the subsidy provision? - Any funding limitation per applicant for a certain period (1 year; 3 years) or within a region? - Any priority regions in alignment with forestry policy strategies for the development of private afforestation? - How often can a landowner apply for subsidies? Can a landowner re-apply for the same area after one plantation cycle? - Any conditions or factors that may exclude one from the application process? If yes, what are they ? - Any constraints for reimbursement per applicant (subsidy rate)? - Any tree species excluded from the subsidy program?

		• It is advised that forestry administration provides information guidance comprising technical aspects, administrative aspects, examples of best practices, list of registered certified companies for the afforestation project development, etc.; • Time needed for the review and decision on an afforestation project proposal shall consider the planned plantation size. The bigger the size, the more time needed; • A minimum survival rate after one year should be defined in the plantation management plan. Successful poplar plantations in the pilot areas show that survival rates below 80% should not be accepted;
		• A subsidy program must be backed up by clearly structured and stipulated regulations; • The rules regulating main aspects of the subsidy program must be aligned to an overarching objective to embed its activities in the current forest policy context; • As the applications for subsidy are submitted online, relevant support both technical and content-wise from relevant government institute must be foreseen;
		• Planning of financing of the subsidy program for certain period is central for the implementation of the program. • The rules should clearly stipulate if the landowners' own work can be a part of the reimbursed costs (e.g. through flat rates); • The subsidy rate should reflect a number that allows for confident planning for the whole period (i.e. 3 years) of subsidy. This will improve attractiveness of the subsidy program; • Consider introducing the subsidy limitation per ha in case of overall limited financing of the subsidy program; • A minimum subsidy amount must be reasonable enough to justify administrative costs of every application processing; • Subsidy amounts should be differentiated and graded depending on the plantations' scale categorized as follows: very small plantation – 1-5 ha, small – 5-20 ha, medium – 20-100 ha, and large – 100+ ha. • It should be considered that costs per unit decline with growing plantation size, which is a consequence of higher efficiency and professionalization, lower material costs per unit for larger orders; • Consider introducing sanctions in case of negative results of plantation monitoring. These could include: rectification at own expense, repayment of subsidy amount, stopping or reducing disbursement;
		• Regulations should provide guidance on the site selection criteria (soil, climate, inclination) and on the tree species and clones, considering local area specifics; • The rules should clearly stipulate the categories of land where subsidized afforestation is possible;

Cornerstone 2: Piloting Private Afforestation

GIZ Experience for Implementation	In 2015 with the objective of assisting the Forestry and Wildlife Committee to set up an integral private afforestation concept, comprising a functioning government-financed subsidy program, GIZ conducted a study aiming to evaluate conditions that would allow involving private investors in afforestation measures. The support was realized through the conducting of analysis and provision of recommendations on: 1) technical aspects of afforestation, and 2) policy matters regarding the establishment and consolidation of the national subsidy program for private afforestation. Analyzing of the policy setting would help to understand required enhancements of regulations to enable private investments into afforestation, while technical information would serve as a basis to investment calculations. The 'policy' component considered subsidies and tax incentives, provision of land, wood and forest cluster, carbon market, while the 'technical' one investigated the detection of suitable sites, and cost-benefit analysis. Findings of the study advised implementing concrete sample tree plantation plots to gather necessary technical data. Out of potential four models on forest improvement considered in 2015, the afforestation with fast-growing poplar model was selected through a wide stakeholder consultation process. In 2016 six pilot afforestation plots of similar design were established in Almaty, Zhambyl and Akmola oblasts[14] of Kazakhstan. All plots of 1 ha each were established, with private tenants or owners, to collect information about survival and growth rates, watering, fencing, soil cultivation, fertilization, material and labor costs, machine costs, etc. The planted tree species include Poplar Kazakhstanskii and Poplar Kairad in two main plots, and Populus Tremula (triploid), Populus Alba, Birch, Pine, Apple, Ash in four experimental plots.
	The piloting successfully enabled obtaining of technically specific findings, the successes of the plots proved to be different though. Analysis of the survival rates and growth of the plants indicated high results for those plots where maintenance was performed in time and properly. At the same time, in the plots where some of the maintenance works were not completed timely or at all, slow growth indications were noticeable yet upon the first plantation year. The piloting results have provided natural, technical and financial data. Besides, the piloting delivered valuable experiences on the entire process of site selection, negotiations with service providers and landowners, development of the administrative forms and preliminary rules. This allowed gathering information on timeline and intensity of a plantation establishment in relevant local contexts. Local expertise gathered through the stakeholder meetings and cooperation with landowners within the piloting, matched to the international funding experience, have served as a basis to drawing guidelines for the operationalization of the private afforestation subsidy program. Overall, the experience from the piloting showed that the establishment of (Poplar) plantations in Kazakhstan is feasible in different regions. The preconditions for this activity, such as: land availability, well-functioning service providers, experience and expertise of the interested landowners and nurseries for provision of planting material – exist and are accessible.

[14] An oblast is a 1st level of administrative division of a country.

	Reference material used and recommended: - Draft Concept State Forest Policy until 2020[15] - Forest Code of the Republic of Kazakhstan from 8.07.2003 No. 477-II (with amendments and additions as of 01.01.2021)[16] - The Rules for reimbursement of expenses for the establishment and cultivation of plantations of fast-growing tree and shrub species, the creation and development of private forest nurseries, approved by Resolution of the Government of the Republic of Kazakhstan from August 1, 2012 No. 1014[17] - UNIQUE Forestry and Land Use GMBH reports[18]
Key Elements of the Experience	**Guiding Principles and the Way How They Are Related to ILUMA Dimensions**
Implementation of a small-scaled pilot afforestation to collect natural, technical and financial data	 • Consider qualification of service providers as it may influence the success and cost of plantation. • Availability of well qualified service providers (forest management companies, nurseries, etc.) in the forestry sector must be considered as it may impact the outcome of the piloting. • As local entities the lekshozes comprise both regional knowledge and know-how on planting techniques, planting material etc.
	 • Regular and complete reporting by participating land users on the progress of the pilot plantation is crucial for proper monitoring. • Support land owners/land users in reporting process during the piloting to ensure the provision of reliable data. • Silvicultural activities for fast-growing tree plantations differ from natural forests. Management plan should summarize all activities, with crucial elements such as afforestation site, planted species, rotation period and production goal. • Fencing of tree plantation is necessary in case of risks by livestock and wildlife. • Effective functioning irrigation system is crucial for the success of the tree plantations. • The planting process comprises the handling and quality check of the material, planting itself, fertilization and first watering. • Maintenance starts directly after planting and is a demanding multi-task process.

[15] Проект Концепции государственной лесной политики до 2020 года: https://online.zakon.kz/Document/?doc_id=30395284

[16] Лесной кодекс РК от 8.07.2003 г. № 477-II (с изменениями и дополнениями на 01.01.2021 г.): https://online.zakon.kz/document/?doc_id=1041486

[17] Правила возмещения расходов на закладку и выращивание насаждений быстрорастущих древесно-кустарниковых пород, создание и развитие частных лесных питомников, утвержденные Постановлением Правительства Республики Казахстан от 1 августа 2012 г. 1014: https://online.zakon.kz/Document/?doc_id=31238477#pos=1;-16

[18] UNIQUE Forestry and Land Use GMBH

		• A phased approach should be applied to gather detailed data on the number of suitable pilot afforestation sites and to support the selection of concrete sites for piloting. • At the initial stage of the piloting it is important to ensure that: - A general concept of the piloting approach is developed; - A clear structure of a working group determined; - Responsibilities of the involved stakeholders clearly stipulated; - Results of the piloting will be properly documented. • When establishing an "afforestation" task team a clear division of the roles must be ensured: financing (i.e. a development partner), implementation (forest enterprises, forest users, etc.), technical advice and supervision (consultant), supervisory board (forest administration, users, NGO, research, etc.). • Leskhozes should be integrated into the process and included in the implementation of the subsidy program on a regional level.
		• Ensure that responsibilities between the subsidizing organization and the beneficiary (land leaseholder) are clearly defined to prevent unreasonable expectations regarding the coverage of certain costs. • Relations between the afforestation project stakeholders shall be based on contractual conditions. • Timely and proper maintenance of tree plantation during the initial years of its establishment is critical to ensure higher survival rate and growth. • Most important steps in one rotation period are represented by Phases: 0 - Site selection and administration, 1 - Preparation activities, 2 - Planting, 3 - Maintenance (yrs. 1-3), 4 - Maintenance (yrs. 3-15), 5 - Thinning, 6 - Final Felling. • Appropriate conditions for afforestation with target tree species should be defined, including the variables: **Administrative aspects:** Land ownership - the ownership type of the land suitable for afforestation piloting should be defined (state property, private, communal, municipal, etc.) Infrastructure – access to future afforestation area: – maximum distance to nearest forest road and public road should be defined (only areas, which are accessible via public roads and existing forest roads, should be selected).

		• Consider development of standard costs per category that could serve as a benchmark for an afforestation subsidy programme. • With a view of deriving of robust numbers for cost and benefit, consider conducting a "wide-scale" or extended piloting (more land users and investors, different management plans, various planting schemes, and more area). • A standard plantation (forest) management plan included in the application for subsidy should comprise a financial plan that details actual costs and the costs to be subsidized. • When considering economic incentives for afforestation subsidy program, key afforestation models should be identified, i.e.: fast growing species (poplar), highly productive tree species (birch), improvement of degraded forests, afforestation for environment/ protection purposes. • Small-scale project result indicates rather high costs in some of the plantation plots due to high cost of planting material. Hence, upscaling of afforestation must be considered to seek higher efficiency on work and material and overall lower costs per hectare. • To ensure sustainability of the pilot project, co-financing from the participating land user with their own resources and/or in-kind contributions is recommended. • Timely payment of subsidy amounts directly influences afforestation activities schedule and hence the successfulness of the plantation. • Consider location/remoteness of service providers as this influences the cost of planting works. • Small size of the plots (1 ha) determine higher costs of fencing. Increasing size of the afforestation plot will inversely decrease the cost of fencing. • Maintenance costs also depend on the necessity of weed control. Proper timing of the weed control measures helps to lower the maintenance costs. • Afforestation costs very strongly depend on the afforestation site circumstances – such as water resources availability, public water resources, costs per liter if necessary, etc. • Regular and detailed reporting by participating land users on the progress of the pilot plantation is crucial for proper cost calculations. • The subsidy beneficiary's having clear understanding of the objectives and motives for afforestation determines correct and realistic preliminary cost estimates of afforestation project • Government policy should consider the supporting the increasing of the number of nurseries. High demand for the nurseries' products will lead to a higher competition of the seedling providers in the market, which will influence the quality (improvement) and cost (decrease) of planting material. • Upscaling and learning effects are the main drivers for cost reduction.

- Appropriate conditions for afforestation with target tree species should be defined, including the variables:
- Natural conditions
  - Soil and terrain conditions
    - suitable soil types for target species;
    - maximum slope acceptable for a first afforestation;
    - altitude ranges (with a suitable climate for target species);
    - optimal aspects (i.e. only north, north-west and north-east aspects suitable)
  - Climate conditions
    - temperature ranges
    - precipitation ranges
    - other climate data (restrictions due to late frost or strong winds in mountainous areas)
- It is important to have information about the target tree clones or species, well adapted to local conditions, and high-quality seed material.
- At the initial stage of site selection (including with the use of GIS technologies), the most suitable regions and districts should be identified based on the criteria that the selected districts provide good natural growth conditions for the targeted tree species.

Cornerstone 3: Land Availability and Economic Aspects of Private Afforestation

GIZ Experience for Implementation

This cornerstone offers an overview of the findings and recommendations with regards to the availability of land and economic aspects – important factors of the implementation of private afforestation subsidy program.

Market Availability

To make afforestation attractive for the private sector, markets to place the produced resources and products are crucial. In addition to sharing the costs for plantation establishment, the enabling investment environment and product marketing opportunities must also be developed and put in place. The opportunity to sell is a strong incentive for private sector involvement in afforestation projects, as a factor of economic justification for financial investments.

The long-term investment nature is specific to plantation establishment, especially in comparison to agricultural investments. To prevent a situation where the long return on investment distracts the potential investors, the initial financial support by a subsidy program can deliver the start-up financing, thereby increasing the attractiveness of the investment, and demonstrating the government's interest and political backing of afforestation activities.

The wood processing clusters that are to be established have the role of delivering the logistics and technologies to transform the wood resources from the forest or from the plantation into final products for markets.

Kazakhstan's growing economy has significantly increased the demand for wood-based products in recent years. Population growth and economic activities in wood consuming industries drive the growing demand in wood. It is expected that the demand and consumption of wood products will be increasing in the future. Currently the processed wood in the country exceeds the amount of harvested wood from Kazakhstan's forests[19]. A significant opportunity for value adding could emerge if domestic production would substitute imports to larger extent. In this context, afforestation targeting wood production can greatly contribute to meeting the demand of wood products for national consumption, while also using the value adding potential of the forest sector.

Land Availability

Unlike the agricultural investments, the ones in afforestation return in a long run even when using fast-growing tree species. In the forestry it takes years between the initial input (planting) and receiving the revenues (final felling). Therefore, when it comes to the establishment of a processing industry, no wood from tree plantations can be made available immediately. Hence, starting to supply the processing industry with resources already available from the existing forests represents an opportunity for a quicker development of clusters. Even if the wood from the fast-growing tree plantations arrive to other production lines than the ones for the wood from natural or semi-natural forests, the already established wood clusters could be more easily extended to the regions where wood processing know-how and logistics are existing.

To initiate sectoral development on planning and wood processing cluster establishment, reliable and up-to-date data on existing forest resources is necessary[20]. To complement the sectoral development initiated by the processing industry fed by the existing resources, available land for afforestation development should be identified. A land availability analysis serves as an instrument for the substantiated decision-making on investment allocation for afforestation and cluster development.

[19] World Bank, 2018

	So far, no such analysis for the entire country or for an entire region has been applied in Kazakhstan. To obtain the land availability analysis indicating suitable sites for large scale afforestation and cluster establishment, information on natural suitability (for a certain tree species) is to be combined with land tenure information (areas legally available for private afforestation). At a policy level, it should be very clear what land categories are legally available for private tree plantations. As a result, all potentially available areas for private afforestation can be identified. One more critical aspect is the motivation and willingness of the private sector to engage in afforestation activities. Depending on the scale of an envisaged plantations, motivations of private entities may differ greatly. However, what is common for all tree plantation investors is the importance of land tenure security and the security of the right to harvest until the end of the plantation's rotation cycle, in order to fully benefit from the long-term investments.
	Reference Material Used and Recommended: - Draft Concept of the State Forest Policy until 2020[19] - Forest Code of the Republic of Kazakhstan from 8.07.2003 No. 477-II (with amendments and additions as of 01.01.2021)[20] - The Rules for reimbursement of expenses for the establishment and cultivation of plantations of fast-growing tree and shrub species, the creation and development of private forest nurseries, approved by Resolution of the Government of the Republic of Kazakhstan from August 1, 2012 No. 1014[21] - UNIQUE Forestry and Land Use GMBH reports[22]
Key Elements of the Experience	**Guiding Principles and the Way How They Are Related to ILUMA Dimensions**
Development of policy recommendations based on the piloting findings, study of national context and international best practices on subsidizing of afforestation initiatives	 • If coordinated with the overall forestry strategy, the introduction of a program to support private forestry will secure for the latter a higher political profile and harmonize it with other already available sectoral development goals, for example with regard to markets and industry. • Proper harmonization of the forestry development strategy with other sectoral strategies will ensure consistency and prevent the risk of implementing contradictory objectives that jeopardize the development of private afforestation. • Unbalanced promotion of policies that encourage other sectors and land uses - mainly agriculture - may create serious obstacles to the successful development of subsidized private afforestation. • In general, having a structured forestry development strategy will facilitate any future decisions within the sector. In turn, it should be based on reliable and up-to-date data on the available resources and serve as a decision-making guide for all managers, private investors, specialized organizations and industry representatives. • The government policy on afforestation must be clear and understandable, and a forestry development strategy can be a necessary tool for its implementation.

[19] Draft Concept of State Forest Policy until 2020: https://online.zakon.kz/Document/?doc_id=30395284

[20] Forest Code of the Republic of Kazakhstan from July 8, 2003 No. 477-II (with amendments and additions as of 01.01.2021): https://online.zakon.kz/document/?doc_id=1041486

[21] The Rules for reimbursement of expenses for the establishment and cultivation of plantations of fast-growing tree and shrub species, the creation and development of private forest nurseries, approved by Resolution of the Government of the Republic of Kazakhstan from August 1, 2012 No. 1014: https://online.zakon.kz/Document/?doc_id=31238477#pos=1;-16

[22] UNIQUE Forestry and Land Use GMBH reports

		• Government sector should ensure reliable support of a financial commitment for a certain pre-defined period in accordance with a strategic implementation plan of private afforestation. Coordination of relevant government agencies (e.g. forest administration and ministry of finance) is crucial. • Apart from direct incentive (expenses reimbursement), careful assessment of indirect incentives is crucial for the success of the implementation in practice. • Indirect incentive such as: market, infrastructure availability, and land tenure and resources' security enable the direct incentive (subsidy). • Provision of direct material incentives only, is not likely to effect the anticipated result without enabling investment environment, knowledge and assistance availability.
		• The benefit for the state from the involvement of the private sector in afforestation activities is the reduction of the financial burden on the state budget that is due to the costs of establishing and maintaining forest plantations. • The tasks of forming an economically favorable climate for the purposes of increasing the competitiveness of the woodworking industry must be prescribed in the programs of development of the forest industry. • An incentive system should provide stimulation of private capital and initial financing for the creation of new business models. Next to receiving financial support, investors should be willing and capable of investing own resources as well, based on the perspectives of an attractive return on investment. • Consider creating incentives for the private sector to engage in afforestation given more efficient and successful private-sector-driven afforestation projects, as compared to the government-supported ones. • International climate financing sources should be considered to support the implementation of large-scale afforestation projects. To achieve this, more information needs to be acquired, analyzed and put into the context of private afforestation clusters, to enable the demand-side driven business case development for wood products. This includes: - market information and quantification of the value adding potentials; - analysis of the untapped potentials and market requirements of harvested wood products (HWP); - economic validation of fast-growing species (suitable for plantations) in existing and potential value chains; - potentials assessment for the establishment of processing industry evaluating different business models; - potentials assessment for the establishment of production clusters;

		• Consider securing international financing providing a combination of concessional loans and technical assistance grants for the implementation of large-scale afforestation in priority regions, with simultaneous support of development of wood processing industry. Such project targets the following: - Carbon sequestration in forests, emission reduction from forest degradation; - Contribution to social and economic development through growth and transformation of forestry sector; - Improvement of the enabling legal framework for private investments in forestry; - Development of a blended finance mechanism for the private sector to channel investment to: - restoration and sustainable management of natural forests; - establishment of private productive forest clusters; - transformation of the wood processing industry.
		• Large-scale private afforestation offers opportunity to increasing of carbon sequestration through the forest cover enhancement, which should be included in the implementation of the transition to “green economy” strategy.

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