This Brief Note presents the global grounds and commitment for developing an LEDS, its character and role in the strategic planning system of the country, the international experience and the applicable structural and content-wise approaches for Armenia's LEDS. The document was prepared in the framework of the EU -UNDP regional programme «EU for Climate».

Low Emission Development Starategies

Brief Analytical Note

UNDP, CC - Armenia

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Introduction

The **Paris Agreement (PA)** on climate change is the first legally binding global agreement which devises a plan for avoiding the impact of the dangerous changes in climate by limiting the global warming «at a significantly lower level than 2°C». The PA offers to show a complex approach of development by providing inclusive and resilient economies with a zero level of carbon emissions in 2100 together with the 2030 Agenda and the Framework for Disaster Risk Reduction (Sendai). The PA is basing on the national promises of 192 countries on responding to climate change, known as the Intended Nationally Determined Contributions (INDCs) which after ratifying the Paris Agreement shall become a mandatory Nationally Determined Contribution (NDC) for the countries. The NDCs reflect the aspirations of the country for the reduction of greenhouse gas emissions (GHG), taking into account the local conditions and capabilities of the country. Moreover, the majority of countries includes in the NDCs also the adaptation goals. That is to say, the NDC is supposed to become a fundamental vision, according to which the climate change national, local and sectoral policies and activities are brought into conformity with the priorities of the national development and sustainable development goals (SDG). The NDCs support climate change and the formation of a more complete and nation-wise approach to sustainable development. The implementation of the NDC requires a new institutional framework, thanks to which the activity directed against the climate change breaks out of the limits of authorities of the ministries of environment and demands more inclusive approaches, with clearly defined mechanisms of inter-ministerial coordination, roles and responsibilities, including the involvement of the private sector. Nevertheless, the implementation of the NDCs requires a longer-term strategic framework. **In this respect, the low emission development strategy (LEDS) is the most important ground for the implementation of the NDCs. The Paris Agreement has applied to all involved sides with a call (Article 4/19) to devise greenhouse gas low emission development long-term mid-centennial country-wise strategies by 2020.**

The grounds for including the provision on LEDS in the PA article are much deeper and are dating back to the earlier sessions of the Conference of the Parties (COP). The Cancun Document, 2010, was encouraging the parties «to develop low carbon emission development strategies or plans in the context of sustainable development». And the Durban Document, 2011, called the developed countries to provide financial and technical aid to developing countries for devising these documents. This became grounds, for example, for the USA to launch an adequate capacity development program in cooperation with partner developing countries (Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) program) and the LEDS Global Partnership cooperation platform.

Several countries, including the EU States, have already presented their LEDS, whereas the East Partnership Countries are only starting this process which requires a clear expression of commitment.

The goal of the programme «European Union for Climate Change» is to support the development and implementation of climate-change-related policies by the East Partnership Countries which support the low emission development and the accomplishment of commitments taken by the PA.

What is the Low Emission Development Strategy (LEDS)

The implementation of ambitious actions by countries for achieving the goals of the PA concerning climate change is crucial for keeping the increase of temperature below 2^0C and limiting the growth of the temperature below 1.5^0C. The LEDS gives guidance to countries in achieving these goals concurrently promoting the adequacy of climate change plans with a high level, sustainable, balanced and just growth. The strategy also gives grounds for identifying the framework of the needs for approximating the national actions with the PA global ambitions. The current commitments of the NDCs cannot be sufficiently ambitious for the implementation of

the long-term goal of 1.5^0-2^0C, as they are targetting a mid-term horizon. Accordingly, there is a need for significant and sustainable investments, as well as new policy mechanisms. A long-term strategy gives the country an exceptional possibility for devising perspective approaches to development and climate strategies basing on the achievements of the previous decades and guided by the aspirations of the coming ones. That is to say, the LEDS supports the solution of a wide range of issues, particularly:

- ✓ ensure a possibility to pursue ambitious development goals and concurrently accomplish climate actions;
- ✓ provide a long-term agenda for short-term and mid-term (NDC) commitments;
- ✓ give early and predictable signals to businesses and sectors with high emissions for planning their transition actions;
- ✓ provide cooperation, considerations of mitigation possibilities for the whole economy;
- ✓ develop an economic policy adequate to the trends of the technological progress in the context of transforming the challenges into opportunities.

The LEDS can involve a long-term vision, development considerations, mitigation and adaptation elements, sectoral strategies, implementation approaches, monitoring and reviewing processes. In spite of the presumption that the LEDS is focused on mitigation, the country can engage additional elements and considerations. The scope and depth of the LEDS are adequate to the national priorities. Nevertheless, it depends on the level of preparation, possibilities and availability of resources. Article 4/19 of the PA states that the countries shall take into account «the commitments and corresponding possibilities which are common but also different in the light of diverse national conditions».

There is no universal approach, and a long-term strategy should be adequate to the national conditions and priorities.

Thus, LEDS is a framework for the implementation of a long-term, social-economic development and environmental planning which summarises the steps for accomplishing the development goals and policies of the country, and concurrently reducing the GHG emissions. The LEDS together with climate resilience helps to import climate change considerations in the policy agenda and include into the framework of the government functions.

Not all countries have a formal «LEDS» document or process. Many countries integrate it into the programs titled «Green Growth», «Sustainable Development», «Clean Energy and Sustainable Land Use» and other documents. Regardless of the title, the **LEDS are characterised by a combined trajectory of development and reduction of GHG emissions.**

The International Experience

The beneficiary countries have different status and commitments under the UNFCCC (Belarus and Ukraine are Annex I countries). Georgia, Moldova and Ukraine have signed Association Agreements and Armenia a Comprehensive and Enhanced Partnership Agreement with the EU, which contain specific commitments for the countries to align with the EU Regulations on ozone-depleting substances (ODS) and fluorinated greenhouse gases (f-gases), as well as with specific provisions of the Emission Trading System (ETS) Directive in the case of Armenia, Moldova and Ukraine, the Monitoring and Reporting (MRR) Regulation and the Accreditation and Verification (AVR) Regulation (Armenia only) and the Fuel Quality Directive (Moldova only). In addition, Ukraine, Moldova and Georgia are members of the the Energy Community. Naturally, some of the countries are more advanced than others in terms of implementing the Paris Agreement, for example, Ukraine and Moldova have in place Low-emission Development Strategies.

This section addresses the experience of the countries having LEDS (Table 1), paying particular attention to the experience of the Eastern Partnership countries (2 in this case, as Moldova and Ukraine have LEDS). The international experience is presented according to certain characteristics, which are most interesting at this stage in terms of starting the process of development of Armenia's LEDS. Accordingly, we will next look at the LEDS of countries according to

their legal status, sectoral coverage, structural elements and implementation mechanisms.

Table 1. List of countries having LEDS

	Country /Document	Date of communication/development
1.	**Mexico**. Climate Change Mid-Century Strategy	16/11/2016թ.
2.	**USA**. Mid-century Strategy for Deep Decarbonization	16/11/2016թ.
3.	**Germany.** Climate Action Plan 2050	14/11/2016թ.
4.	**Canada.** Mid-century Long-term low-greenhouse gas Development strategy	17/11/2016թ.
5.	**Benin.** Low Carbon and Climate Change Resilient Strategy	12/12/2016թ.
6.	**France.** National Low Carbon Strategy	28/12/2016թ.
7.	**Moldova.** Low Emissions Development Strategy	30/12/2016թ.
8.	**Czech Republic**. Climate Protection Policy	15/01/2018թ.
9.	**UK of GB.** The Clean Growth Strategy	17/04/2018թ.
10.	**Ukraine.** Low Emission Development Strategy 2050	30/07/2018թ.
11.	**Marshall Islands.** 2050 Climate Strategy	25/09/2018թ.
12.	**Fiji.** Low Emission Development Strategy	25/02/2019թ.
13.	**Japan.** The Long-term Strategy under the Paris Agreement	26/06/2019թ.
14.	**Portugal.** Long-Term Strategy for Carbon Neutrality of The Portuguese Economy By 2050	20/09/2019թ.

Legal Status

As already mentioned, the need to have LEDS stems from the requirement of Article 19 (4) of the PA. In particular, the provision stipulates "All Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances." The " strive to" formulation itself suggests that having LEDS is not a mandatory requirement, but an exhortation, which is fully consistent with the nature and content of this type of document (see previous section). At the same time, the terms of "formulated and communicate" are not legally bounded in terms of both the issuing body and the type of legal act. In other words, we can state that there is no obligation to have LEDS and no restrictions on its legal status. This approach quite logical and it is stipulated in the second paragraph of article cited. In this sense, it is important to learn the respective international experience to understand how to reflect countries' special needs and ambitious in strategic framework.

According to UNFCCC Secretariat records as of 01.10.2019[1], 13 countries have communicated their LEDS with UNFCCC. Among the 14 countries in the Table 1 there is not a record on **Moldova**, which adopted its LEDS by the Government's decision in December 2016. **Ukraine's** LEDS has been approved by the Ukrainian Government's protocol decision, which was preceded by the consent of Inter-ministerial Commission on implementation of UNFCCC (since 1998) chairing by the Ministry of Ecology and Natural Resources. That is, in the cases of these Eastern Partnership countries, governments have approved the LEDS. Yet, we should note that in case of Ukraine, it was a Government protocol decision, which is a bit soft legal act in terms of implementation.

In **USA, Canada, and Mexico** the strategies expressed in the reports, which reportedly went to the UNFCCC Secretariat. They are prepared by the relevant bodies of executive power with active engagement of think tanks, academia, public and private sectors, summarizing also society ambitious on GHG emission reduction targets. Moreover, these three countries have developed their reports in close cooperation in the scope of the protocol on North

[1] https://unfccc.int/process/the-paris-agreement/long-term-strategies

America's climate, clean energy and environment cooperation.

In European region, the picture is different in terms of legislative rules and techniques of law enforcement. For instance, the regulation is quite remarkable in France and the United Kingdom. Particularly, **the United Kingdom** Government approves the "Clean Growth Strategy: Leading the way to low carbon future " document developed by the Department of Business, Energy and Industry, and submits it to the Parliament in accordance with Climate Change Act. **France has** more detailed regulation, according to which the National Low-Emission Strategy is developed by request of respective Law. The latter states the requirements for the content of strategy, as well as the exact dates for submission to the Parliament along with the budget. Moreover, the strategy adopted by the government may be amended in the end of discussions held within the parliamentary committees. Meaning, in France and UK cases, the document seriously considered by the two branches of power and, what is most remarkable is that the decision on having such a strategy is not just the government's initiative. In **German** case, the approach is rather conservative. "Climate Action Plan 2050" document is adopted by the Cabinet, summing up the suggestions from different states of federation, NGOs, municipal authorities and the scientific community. **In Portugal,** this authority is vested in the executive branch, but with one difference that the strategy is adopted by the resolution of the Council of Ministers. The latter is a collegial executive body operating under the Government, which is formed by the first ministers. **Czech Republic's** "Climate Defense Policy" was developed by the Ministry of Environment and is approved by the resolution of Czech Government. The LEDS were approved by the executive body's (government, cabinet) decisions **in Japan, Fiji and the Marshall Islands**.

As a summary we can state:

- Paris Agreement calls on countries to formulate and communicate long-term GHG low emission development strategies.
- Having LEDS is not an obligation, but a global commitment. The legal status of it is not bounded.
- LEDS experience of countries shows that countries communicate their LEDS adopted, approved or declared in any way in accordance with country legal framework. Generally, it is in the mandate of the Government. The differences are mostly in legal control and enforcement mechanisms.

Sectoral Coverage

As already mentioned, LEDS contains sectoral strategies. In this section, the sectoral coverage of countries LEDS, as well as the main considerations upon which formed the sectoral framework of LEDS are presented.

Overall, sectoral strategies have play important role in development and implementation of LEDS leading realization of strategic goals. The opposite observation is also relevant, namely that a long-term strategy can guide the formulation of sectoral policies.

Many decisions are made at the sectoral level. Sectoral policies and plans help dictate investments and technology choices. They also guide behavioral changes at the local, corporate, and individual levels. Thus, i**t is important to prioritize the sectors that contribute most to the national greenhouse gas inventory and/or are expected to contribute most in the future.**

In their LEDS, countries consider the sectors, inter alia:

- ✓ **by the share of sector in the GHG emissions,**
- ✓ **by the sector 's potential to reduce GHG emissions,**
- ✓ **by the presence of sectoral targets and / or extent of their harmonization with the economic development goals.**

In its long-term strategy, Germany describes the ways in which preexisting sectoral policies—such as the Energiewende, which lays out Germany's energy transition—affected the strategy's development. The strategy draws on targets in the

construction sector from the Energy Concept as well as the Climate Action Program 2020. Mexico included the agriculture and livestock sectors, which are key for food security but contribute significantly to greenhouse gas emissions (see the acting LEDS sectoral coverage in Table 2).

Table 2 shows that the observed 14 countries' LEDS have quite similar sectoral coverage, which naturally is defined by the structure of their national GHG inventory. In particular, all of countries cover "Energy generation, Electricity" and "Human settlements, buildings, and infrastructure" sectors.

The energy sector plays a unique and central role in the success of long-term strategies. Energy production and use account for the bulk of current greenhouse gas emissions and potential reductions. The sector is also the potential source of deep greenhouse gas reductions for other energy uses via decarbonized electrification strategies. Energy planning that accounts for the long lifetimes of energy assets increases the likelihood of avoiding technology "lock-in" and stranding assets.

With minor exceptions, the next targeted sectors are transport, agriculture and forestry. The sector of Industry is also widely considered in LEDS. It can be seen that the sectoral coverage mostly depends on structure of country's economy. Rarely considered sectors are Health, water and wetlands.

While describing LEDS it is mentioned that it may include long term vision, development considerations, mitigation and adaptation elements, directions, implementation approaches, monitoring plans and revision processes. From the Armenian LEDS perspective, it is important to reveal the international comparative picture in terms of mitigation and adaptation.

All G20 countries that have submitted their long-term strategies to the UNFCCC include economy-wide quantitative visions for emissions reductions in 2050:

- **Canada** examines an emissions abatement pathway consistent with net greenhouse gas emissions falling by 80 percent in 2050 relative to 2005 levels.
- **France's** strategy includes a target to reduce greenhouse gas emissions by 75 percent by 2050 relative to 1990 levels.
- **Germany** sets a general objective to reduce greenhouse gas emissions by 80–95 percent by 2050 relative to 1990 levels (the strategy is also guided by the principle of "extensive greenhouse gas neutrality in Germany by the middle of the century").
- **Mexico** aims to reduce greenhouse gas emissions by 50 percent by 2050 relative to 2000 levels.
- **The United Kingdom's** Climate Change Act commits the country to reducing greenhouse gas emissions by at least 80 percent by 2050 relative to 1990 levels, through a process of legally binding five-year caps on emissions.
- **The United States'** long-term strategy envisions economy-wide net greenhouse gas emissions reductions of 80 percent or more below 2005 levels by 2050.

These countries also provide detailed descriptions of how they considered the long-term temperature goals of the Paris Agreement, citing various studies to demonstrate how their vision for emission reductions contributes to the global goals

Moldova's LEDS main goal connected with the goals of NDC and aims to reduce net GHG emissions at least by 64% by 2030 compared to 1990. The target may rise to a conventional 78% depending on global agreement on such important issues as low financial resource prices, technology transfers, technical cooperation, and so on. **Ukraine**, staying committed to PA and led by national interest, under ambitious and global arrangement finds it acceptable to reduce GHG emissions by 31-34 % by 2050 compared to 1990.

Canada, France, Germany, the United Kingdom, and the United States touch lightly on adaptation in their long-term strategies, referring to other national adaptation planning documents. All of the strategies recognize the inherent linkages

between long-term adaptation and mitigation pathways. **Mexico's** strategy provides a more comprehensive treatment of adaptation. Its strategy is rooted in the vision of building a climate-resilient society while transitioning toward a low-emissions economy. The adaptation section of the strategy is drawn from the National Climate Change Strategy: 10-20-40 Vision, released in 2013. It contains a vulnerability assessment, which led to the identification of three strategic focus areas, with associated lines of action: reducing vulnerability and building social resilience, ecosystem-based adaptation, and protecting strategic infrastructure and production systems. Mexico presents six cross-cutting elements that set the foundation of climate policy for both adaptation and mitigation: interinstitutional collaboration; market-based instruments; innovation, R&D, and technology adoption; building a climate culture; social participation; measurement, reporting, and verification and monitoring and evaluation; and international leadership.

Fiji, despite its NAP adopted in 2017, presents to some extent its adaptation policy and its relation with mitigation elements. The Marshall Islands, having intention to develop a separate NAP by 2020, however presents main principles and directions of adaptation policies. **Czech Republic** "Climate protection policy" complement and simultaneously acts under the adaptation strategy adopted earlier. **Moldova's** LEDS contains reference to adaptation action plan that is going to be developed by the respective Ministry.

Ukraine envisages to develop the adaptation policy as detailed as it has been done for mitigation policy. Table 3 reflects the mitigation and adaptation elements' consideration in the observed countries' LEDS.

Table 2. Sectoral Coverage of the acting LEDS

COUNTRY	TRANSPORT	HUMAN SETTLEMENTS, BUILDINGS, INFRASTRUCTURES	AGRICULTURE, RURAL DEVELOPMENT	FOREST	INDUSTRY, BUSINESS	ENERGY GENERATION, ELECTRICITY	WASTE	HEALTH	WATER	WETLANDS
MEXICO	+	+	+	+	+	+	+			
USA[2]	+	+	+	+	+	+	+			+
GERMANY	+	+	+	+	+	+				
CANADA	+	+	+	+	+	+	+			
BENIN		+	+	+		+		+	+	
FRANCE	+	+	+	+	+	+	+			
MOLDOVA	+	+	+	+	+	+	+			
CZECH REPUBLIC	+	+	+	+	+	+	+			
UK GB	+	+	+	+	+	+	+			+
UKRAINE	+	+	+	+	+	+	+			
MARSHALL ISLANDS	+	+				+	+			
FIJI	+	+	+	+	+	+	+			+
JAPAN	+	+			+	+				
PORTUGAL	+	+	+	+	+	+	+			

[2]ԱՄՆ նախորդ վարչակազմը 2016թ. ՄԱԿ ԿՓԾԿ հաղորդել էր միջինդարյա ռազմավարությունը, որը ներառում էր մոդելավորված սցենարները: Փաստաթուղթը այլևս չի արտացոլում ԱՄՆ քաղաքականությունը

Table 3. Addressing Mitigation and Adaptation in acting LEDS

COUNTRY	MITIGATION	ADAPTATION
MEXICO	✓	✓
USA	✓	○
GERMANY	✓	○
CANADA	✓	○
BENIN	✓	
FRANCE	✓	○
MOLDOVA	✓	○
CZECH	✓	○
UK GB	✓	○
UKRAINE	✓	○
MARSHALL ISLANDS	✓	✓
FIJI	✓	✓
JAPAN	✓	○
PORTUGAL	✓	○

Implementation Mechanisms

Several G20 countries have experience using long-term plans or visions to inform near and medium-term decisions. At the 19th National Congress of the Communist Party, China announced a two-stage plan to become a "great modern socialist country" by 2050, in two development periods (2020–35 and 2035–50). This long-term vision will inform short-term policy decisions, by, for example, renewing efforts to reduce poverty by 2020. The European Union's 2050 low-carbon economy roadmap, published in 2011, exemplifies another mechanism for establishing near- and medium-term stepping-stones that build toward a long-term vision. The ultimate goal is to reduce emissions by 80 percent between 1990 and 2050. The roadmap sets out cost-effective plans for 40 percent cuts by 2030 and 60 percent cuts by 2040. India translated a longer-term (15-year) vision into a 7-year strategy document and associated sectoral plans. The six G20 countries that have submitted their long-term strategies to the UNFCCC take a variety of approaches to reflecting near- and medium-term decision-making in their strategies:

- **Canada** notes that midcentury objectives will be realized through concrete, short-term action linked to the Pan-Canadian Framework on Clean Growth and Climate Change (a 2030 plan).
- **France** establishes successive four-year periods, with indicative emission reduction targets by sector.
- **Germany** sets 2030 sectoral targets and milestones and actions and notes that programs and measures will be laid out by 2018 to achieve these targets (see Hoven 2018).
- **Mexico** defines milestones for the next 10, 20, and 40 years for society and population, ecosystems, energy, emissions, productive systems, private sector, and mobility.
- **The United Kingdom** sets out plans to meet its carbon budgets out to 2032, with a view to meeting the long-term 2050 target set in the Climate Change Act.

- **The United States** outlined a scenario approach that explores how low greenhouse gas pathways consistent with the long-term vision depend upon strategic investments.

Most of these long-term strategies also explicitly discuss lock-in risks in the context of long-lived infrastructure (e.g., power generation facilities, distributional infrastructure such as pipelines, buildings).

Although LEDS are not usually formulated as action plans, they can guide short- and long-term processes. The extent to which the short-term and medium-term goals are aligned with the goals of the long-term decarbonization depends on the type of policies and plans and the investments required.

STRUCTURAL APPROACHES FOR ARMENIA'S LEDS

In this chapter, we present the key approaches and principles which guide the structure of the LEDS. They can also guide the development of the structure of Armenia's LEDS. Some reservations will be suggested later and adjusted in the course of further discussions.

Thus the LEDS, in general, pursue the following objectives:

- Informing about the short-term and long-term planning and investments, taking into account the climate issues;
- Presenting the low emissions development vision, principles, objectives and main directions of actions;
- Leading the short-term policies and actions on the national, territorial and sectoral levels;
- Identifying the key possibilities for GHG reduction and specifically the sectors, where the emission reduction can be most difficult (for example, when the reduction of GHG emissions requires significant innovations, new policies, additional financing, etc.).

Let's observe the principle considerations by the predetermined structural elements.

The first component is the formulation of the long-term vision.

Long-term Vision

This is the basic component for guiding decisions, identifying policy priorities and ensuring political support. It shall include social-economic development in parallel with the preservation of natural resources and services. In particular, the long-term vision shall include the following elements:

- the time framework of the strategy implementation;
- the long-term final quantitative results of the GHG emissions reduction;
- the sustainable and inclusive development goals: the acceptable movement of the employed population, the creation of decent and high-quality jobs and the reduction of poverty;
- the goals of human and environmental well-being;
- the long-term expectations/results of adaptation and resilience to climate changes;
- the considerations of interconnectivity between the development, adaptation and mitigation;
- the trajectory of achieving the long-term vision;

The next structural component shall express the approaches to the development of the country.

Development Considerations

The LEDS can integrate and express considerations of development which pertain to the environment and social-economic problems that are in accord with the long-term vision of the country.

Integrating and expressing the development goals in the LEDS ensures the involvement of a potentially wider range of goals in the document,

thus ensuring a potentially more inclusive transition.

The quantitative identification of the GHG low emissions and resilient development anticipations is a useful means for acquiring political support both on the sectoral and governmental levels to lower down the strategy to the level of the sectoral management.

A modelling exercise can reveal different milestones for reduction of GHG emissions in long-term development goals and the potential of compromises necessary for ensuring the transition.

The development achievements can acquire a quantitative expression in the form of health care, decent jobs, economic growth, poverty reduction, availability of clean energy, reduction of inequality.

Mitigation Elements

Achieving the mitigation goals may demand ambitious national commitments. As a rule, this is the core component of all LEDSs. In general, this component is present in all adopted LEDSs. The long-term quantitative results and goals of emission reduction predetermine the content of the strategy and transitions on the levels of sectors and the whole economy. The exercise allows to understand the ambitious anticipations of emissions reduction and return to identify the mid-term results and obstacles.

Adaptation Elements

Consideration of the adaptation elements in the LEDS allows integrating the resilience to climate change with the priorities of mitigation and development. Article 4 of the PA, by calling the countries to make reports on their strategies, assumes that in spite of being targeted at the mitigation, these strategies will include as well the elements or considerations of adaptation. The Agreement also calls to develop the strategies in Article 2, which includes the goal of expanding «the adaptation to negative climate change and promoting the ability of resilience to climate change» (UN UNFCC 2015). Nevertheless, some countries prefer to include the adaptation elements in their LEDSs. The possible presumptions in this respect can be as follows:

- The goals of enhancing the adaptation abilities, strengthening the resilience and reducing the vulnerability;
- The assessment of the impact of the future climate changes on long-term infrastructures, land usage plans, ecosystem services and/or social changes;
- The description of the impact of no action risks on the ultimate environmental, social, human and economic results;
- The identification of the vulnerable groups and sectors;
- The connection with the national plans of adaptation (if they exist);
- The consideration of synergies between the mitigation and adaptation steps;
- The favorable impact of mitigation actions for the adaptation/resilience and vice versa;
- Consideration of the level of elasticity of the mitigation actions;
- The clear attitude in respect of contingencies of the future climate change;
- The connection with the social development agenda and attempts of reducing the poverty.

There are alternative options for planning the adaptability, including the National Adaptation Programme of Action (NAPAs), the National Adaptation Plans (NAPs), national legislation on climate, plans for achieving the sustainable development goals, sectoral plans and LEDSs. Each of these, or any combination of these, creates a sound basis for planning the adaptability, has enough resources, is inclusive, consistent, transparent and realistic. The government shall also take into consideration the connection between the plans to avoid repetitions, create trust and promote the effective solution of climate change and development problems.

The Government of the RA had launched in June 2016 the National Adaptation Plan (NAP) through

consultation with the local beneficiaries and assessment of the existing situation. The program of preliminary actions for implementing a NAP has been devised and approved by the representatives of the key sectors and the Ministry of Environment The Government of the RA considered the NAP as a key factor for achieving the 2015 INDC goals. Currently, there is no comprehensive system of adaptability in Armenia, although the INDC and National Communications provide the preliminary assessments of the adaptation priorities. In order to fill in this gap, the UNDP Project «National Adaptation Plan (NAP) to advance mid-term and long-term adaptation planning in Armenia «aims at supporting Armenia in developing a climate change NAP which shall have a regular character. That is to say, the processes and strengthening of the core capacities shall be in the focus of attention to provide them with an institutional character for ensuring long-term sustainability.

The next structural components are the Sectoral Guidelines and the implementation mechanisms.

Sectoral Guidelines

The reflection of the sectoral component in the LEDS helps to direct the policies and investments in accord with the long-term perspective and thus save from wasting or not effectively using the resources. The long-term strategies also help to direct the investments on the sectoral level and determine the sectoral targets and required actions. Within the LEDS the sectoral strategies can include:

- **The desired result:** The country can take commitment to achieve this result, which can be, for example, reducing the sectoral GHG emissions to some extent, or producing renewable energy in specific amounts, or raising the energy efficiency to a certain level.
- **Specific policies, measures or actions:** The country can take commitment to implement specific sectoral initiatives, which would be in accord with the LEDS, for example, determine privileged amounts.
- **The horizons of the achievements:** The definition of specific, measurable, achievable, realistic and time-bound (SMART) indicators can help to enhance the accountability of the decision-makers, raise the trust in respect of the process, and its political weight, enhance the vertical integration and cooperation with the policymakers and data collectors, focus attention on the innovative actions for climate change.
- **Transition management option:** The sectoral planning only for the transition may include processes pertinent to the beneficiaries, that are required by the affected communities, mentioning the distribution effects, including the impact on the employment and revenues, and the measures for mitigation of these effects, the definition of effective transition, taking into account the inevitability of both gains and losses in the course of the economic transitions, also the policies and undertakings.
- **R&D and innovation possibilities:** These help to direct the investments both in the public and private sectors.
- **Opportunities12, resources and investment strategies:** The countries can identify the opportunities and resources necessary for sectoral strategies.
- **Considerations in respect of other sectors:** The consideration of other sectors can include the description or the analysis of the crossing sectors, the compromises and priorities.

Implementation Mechanisms

The achievements in the level of emission reduction will not be enough to estimate the progress in the direction of the long-term transitions. The harmonization of the short-term efforts with the long-term development and decarburization goals will highly depend on the way how the emission reduction was achieved in each sector. When developing the implementation mechanisms it is necessary to take into account the following factors:

- How will the long-term vision direct the short-term and mid-term sectoral and

intersectoral decisions, including those decisions which are connected with the mid-term results (for example, NDC, SDG sectoral programs, etc.).

- The interconnectivity between the current policies and planning and the infrastructural programs and investment plans, as well as the way the LEDS is going to impact the mid-term and long-term economic and development programs of the country.
- The prioritization of measures for the implementation of the LEDS. For example, instead of concentrating on the low-cost but not long-standing solutions, it may be expedient to make investments today in long-term projects, to create a possibility for avoiding emissions tomorrow.
- The institutional regulations and the legal framework for implementing the LEDS;
- Planning the discussions with the partners in the course of implementation;
- The efforts to manage the transition fairly;
- The resources and capacities required for the implementation;
- The roles of not governmental and regional participants in the process of implementation.

The clarification of when and how the implementation program and the required legal initiatives will be developed is an alternative option.

Monitoring Plans and Review Processes

Planning the monitoring and review processes prescribes the way they will be implemented in the phase of implementing the LEDS:

The preferred option is the one when the document development process includes as well the monitoring plan. The institutional commitments and processes must be prescribed in a way to give clear instructions on what, when, who and how will do the monitoring. To have an understanding of productivity of the made efforts and the dynamics of the key indicators it is necessary to devise sectoral indicators. It is necessary to estimate the progress regularly with consistent approaches. In particular, the monitoring plan can include the following:

- the institutional role, including the institutes responsible for collecting and processing information;
- the information or indicators in consideration, as well as the information sources;
- the frequency of making the monitoring;
- the methods of collecting and analyzing the information.

Reviewing, based on the result of the monitoring, will allow assessing whether the strategy has adopted an innovative direction and is forming capacities and preserving the priorities. On the other hand, the assumptions based on modelling can change in the years (for example, based on new information on technologies or their prices). The accessibility to information can be enhanced and the results of modelling can be adjusted, which can reveal new directions of adaptation. The process of reviewing can create additional possibilities from the point of view of involving new participants and partners.

LEDS can present the framework of the reviewing process by involving, in particular, the following:

- the tasks and principles of reviewing, with the indication of which components are to be reviewed;
- the ministries or bodies responsible for reviewing;
- the frequency of reviewing;
- the methods of reviewing;
- the resources necessary for reviewing and their sources;
- the connection with other local and global processes.

Considerations and alternatives of the structure of the LEDS when making a decision on the structure and content.

When reflecting on the LEDS structure and content framework and making decisions, usually there is a need to contemplate on certain mutual concessions and alternative decisions, like the following ones.

- **Mutual concessions between the comprehensiveness and manageability.** The realistic presumption is that the depth and scope of the document shall be in accord with the national priorities, as well as the involvement, capacities and resources.
- **Mutual concessions between the choice of the questions to be discussed in this document and other questions that will be considered more comprehensively in other documents.** For example. the inclusion of the adaptability elements can help in assessing the impact of the low GHG emissions on long-term developments. Instead, the country can direct the limited resources towards developing separate adaptation plans and not towards integrating into the document. Taking into account the long-term vision, as well as the assumed applicability of the strategy will help in determining the starting scope of the document.
- **Mutual concessions between the urgency of developing a LEDS and the scope of its comprehensiveness.** The processes of strategic planning, regardless of the content requirements are often forced to adapt to the logic of political cycles and/ or depend on the available resources and capacities.
- **Wide framework of participants.** The PA called to the countries to report their LEDS by 2020. The adjacent processes of developing policies can serve as quick access to additional support.

THE STATE POLICIES, SECTORAL STRATEGIES AND ANALYTICAL WORKS

In this section, we present the current strategic documents on the main sectors under the green-house gas cadastre of Armenia, as well as the available data from the performed research. We present as well the framework strategic documents, which, as a rule, come from and/or are developed in accordance with the sectoral policies. Namely,

The Perspective Development Strategic Program of the RA, for 2014-2025 (2014). The program prescribed the social-economic development priorities of the country, goals, key reforms and policy directions necessary for reaching the priority goals.

The 2009-2023 Program of the Government of the RA (2019). The program makes a clear emphasis on the development of the renewable energy and energy-efficient systems, for mitigation and prevention of problems resulting from the climate change, as well as the implementation of adaptation actions under the commitments taken through the international agreements, the development and implementation of a sustainable policy for promoting green economy and achieving long-term sustainable development goals:

It is defined that the main problem of management of the environment protection is to minimize the negative impacts on the environment, air, climate, water, soil, flora and fauna, exclude the overly and illegal exploitation of natural resources, provide the implementation of preventive measures. Concurrently, the Government policy in the sphere of energy will be directed at securing the country's energy independence and raising the energy security, providing integration into the processes of regional development, sustainable development of energy industry, based on the legal and effective use of the local primary (renewable) energy resources, further development of nuclear energy, diversification of the fuel supplies and implementation of energy-efficient and new technologies.

The Economic Revolution Strategy of New Armenia, 2020-2050. The Project defines 19 mega-objectives proceeding from the common vision, including:

- the 9th mega-objective **«Productive and Responsible Farming»** which assumes sustainably developing, innovative, added value multiplying, caring for natural resources farming, which ensures food security and sufficiency.
- the 15th mega-objective **«Renewable and Available Energy»** presumes to provide Armenia with energy security and self-sufficiency, sustainable availability and accessibility of harmless for the environment electric power.
- the 17th mega-objective **«Clean and Green Armenia»**, addresses the widespread responsible and caring attitude of the public to the environment, effective prevention of the ecological and climate risks.

ENERGY SECTOR (the specific weight in the total GHG emissions is 67%)

Within the sector - from electric power production - 23%, from the road traffic - 23%, natural gas leak emissions - 22%, housing sector - 15%, industry and construction - 9%.

The Energy Law of the RA, 2011. The law is the main legal document regulating sphere which defines the state policy principles in the sphere of energy and the mechanisms of their implementation. The principles include «the encouragement …of scientific-technical progress and new energy-efficient and energy-saving technological investment». The amendments made in the law in 2014 created favourable conditions for renewable sources of energy by defining the provision of the twenty years (instead of the previously acting fifteen years) mandatory purchase of the whole produced electric power (except the small HPPs). And in 2016 the changes created favourable conditions for the production of up to 150 KVt (inclusively) solar energy power plants by defining that electric power can be produced without a permit or license given by the corresponding Committee.

The Concept of Ensuring the Energy Efficiency of the RA, 2013. The Concept approved by the order of the President of the Republic of Armenia among the main ways of providing energy efficiency prescribes the effective use of renewable energy resources, the development of nuclear power, and stipulates a clear vision and a range of measures for its implementation. By the order of the President of the RA, the Government confirmed the Decision N836-N, on July 31, 2014, which is ensures the implementation of the Program of Measures for 2014-2020 for the accomplishment of the **Concept of Ensuring the Energy Efficiency of the RA,** by prescribing concrete actions, including such for the accomplishment of the goals of energy-efficiency and development of the renewable energy production.

The long-term energy sector development strategic document **«Energy sector development strategy of the Republic of Armenia in the context of the economic development»,** adopted by the session decision of the Government of the RA of June 23, 2005 (the target horizon by 2025), by which the strategic directions of the energy sector development include the use of the renewable energy resources and energy efficiency, as well as the nuclear power, for ensuring the necessary level of energy security and independence. The document defines as well the actions for ensuring the achievement of the goals and initiatives of the program.

On December 10, 2015, the session decision of the Government of the RA, N 54 approved the document «**The Directions of Long-term Development of the Energy Sector of Armenia (by 2036)»** which is targeted at ensuring the sustainable development of the energy sector based on the development of the nuclear energy, effective use of the renewable resources, construction of combined cycle TPPs and diversification of the fuel importation ways. Currently, the energy development strategy of the country is being reviewed to integrate a more ambitious development vision for the sources of renewable energy, diversification of the fuel supply chains and regional cooperation and integration programs.

On December 22, 2011, the Government of the RA approved by Session Decision N 50 the **«Concept of Ensuring the Energy Security of the Republic of Armenia»**, which has qualified the task of creating an attractive for investment environment as a concept problem, including both the renewable and alternative sources of energy and the nuclear power sector, provision of energy-efficiency and energy-saving.

The Law of the RA «On Energy efficiency and Renewable Energy» adopted on November 9, 2004, is the main legal document governing the sphere and is regulating the interrelations of the state and local self-governing bodies of the Republic of Armenia, legal and physical entities proceeding from the activities in the sphere of energy-saving and renewable energy production. **The amendments made in the Law in 2016** have created favourable conditions for the development of business production of solar electric power, by defining the order of interconnection between an independent solar energy producer and the entity owning an electric power distribution license. They also defined the provision of mandatory technical requirements of energy-saving and energy-efficiency in newly constructed multi-apartment buildings, as well as constructions newly built (reconstructed or renovated) by the financing of the state budget.

By the demand of the Law the session decision of the Government of the RA of January 18, 2007, N2, approved the **«National Program of Energy-saving and Energy-efficiency of the Republic of Armenia»**, which targets the period of 2007-2020 for the assessment and realization forecasts of the energy-savings and renewable energy potential of Armenia. The program has been implemented by a) **«The Action Plan of the Republic of Armenia for the Implementation of the National Program on Energy-saving and Energy-efficiency** approved by the session decision of the Government of the RA N43 of November 4, 2010, including the period of 2011-2013, and b) the session decision of the Government of the RA N4 of February 2, 2017, that has approved the document **«Second Phase of the Energy-efficiency Action Plan of 2017-2018 of the Republic of Armenia».**

The Concept of Developing Hydro-energy in the RA, 2016, prescribes the vision of the Government of the RA for the development of the sphere of hydro-energy, making the investment environment more attractive, the need for implementing options of public-private sector cooperation and providing certain legal guarantees. It was adopted by session decision of the Government of the RA N 53 in 2016.

New Projects

The Action Plan of Initiatives of the Government of the RA of 2019-2023 stipulates to develop a range of strategic documents within the coming 5 months, namely:

- **In 2019** – the long-term development directions of the energy system of the RA for devising the energy system development directions in 2020-2040;
- **In 2021** – the new perspective development plan of the electric energy system of Armenia, and the initiatives for the development of the sector in the next decade.
- **In 2021** – The national program of energy-saving and energy-efficiency of the Republic of Armenia for 2021-2030, for devising new branch initiatives and targets, which will support the further development of energy-saving policy and identification of concrete steps for its implementation.

- ✓ **Armenia: Energy Efficiency Project – Independent Evaluation, WBG, 2019;**
- ✓ **Least-Cost Energy Development Plan for Armenia's Energy Sector in 2020 – 2036. Market Liberalization and Electricity Trading Program, USAID, 2019.**
- ✓ **Analysis of Energy Efficiency Gaps in Armenia, LDK Consultants, 2019.**
- ✓ **Inventory of Energy Subsidies in the EU's Eastern Partnership Countries, OECD, 2018.**
- ✓ **Acceleration of Development and Adoption of Energy Labelling and Minimum Energy Performance Requirements for Energy-consuming Products in Armenia (EU4 Energy), International Energy Charter, 2017.**
- ✓ **Comprehensive Analysis of Armenia's National Policy in the Sphere of Energy-efficiency , International Energy Charter, 2017.**
- ✓ **Support for Enhancing the National and Territorial Energy Planning and Capacities in Armenia, Energy Research Institute, USAID, 2017.**
- ✓ **How are defined the GHG mitigation priorities: Armenia's and Georgia's apartment building sector marginal price decrease curve, WBG, 2016.**
- ✓ **Climate Change Actions Financing in Armenia, Country Study, OECD, 2016.**
- ✓ **Least-Cost Development Program of Armenia's Energy Sector, USAID, 2015.**
- ✓ **Armenia: Low Carbon Development Pathways, Opportunities for Developing Countries, WB, 2015.**
- ✓ **Sustainable Energy Pathways in the South Caucasus: Development Opportunities and Policy Choices, Heinrich Boell Foundation South Caucasus Regional Office, 2015.**
- ✓ **Armenia – Power Sector Policy Note, WBG, 2014.**
- ✓ **Report on Renewable Energy Development in Armenia, ARREEF, 2011.**
- ✓ **Assessment of the Wind Power Potential of Armenia. USAID. 2010.**

Sustainable Villages and Agriculture Development Strategy of the Republic of Armenia, 2010-2020, confirmed by the Government of the RA on November 4, 2010, by Decision N1476 – N, prescribes the main directions of agrarian policy and the measures ensuring their implementation. The range of the main objectives of the policy includes the development of cattle-breeding, with stipulation of productive combination of the branches of cattle-breeding and rational distribution of support, development of the breeding stock, implementation of complex measures for stock reproduction, enhancement of the veterinary system, increasing the effectiveness of veterinary measures, development of the forage base for cattle-breeding, creating small plants for the production of concentrated stock forage in provinces, supporting the cattle-breeding commercial organizations, ensuring the protection of genetic diversity of the animal pedigree.

Development of cattle-breeding in the Republic of Armenia in 2019-2024, approved by the Government of Armenia on March 29, 2019, by Decision N 327 – L, to support the economic entities involved in breeding cattle in the RA, by loans with partial subsidization of the interests for pedigree stock purchase, which will allow to replenish the cattle herd-stock with economically valuable cattle pedigrees instead of the old, unproductive and unknown pedigree animals, develop the cattle-breeding business, improve the productivity of the dairy and meat production, decrease the cost of the produced milk and meat as compared with the imported products and make the local production more competitive.

State Support Program to Sheep-breeding and Goat-breeding in the Republic of Armenia, 2019-2023, approved by the Decision of the Government of the RA N 1305-L of September 19, 2019, with the goal of to provide state support mechanisms, in particular through accessible loan terms and cost compensation, for creating favourable conditions for sheep-breeding and goat-breeding in the Republic, for the purchase of commercially valuable sheep and goat pedigrees, formation of productive herd-stocks, improvement of the breeder stock, development of the small cattle breeding business, increase of production and export of small cattle stock products.

The Forest Code of the Republic of Armenia, adopted on October 24, 2005, is the main legal document for regulating the sphere and is regulating the sustainable management of forests and forest lands of the RA for protection, preservation, recreation, development and productive use, as well as calculation, monitoring, control and relations connected with the forest lands.

The National Forest Program of the Republic of Armenia, adopted on July 21, 2005, by the Government Decision N1232-N, commissions to plan and implement actions directed at the sustainable management of forests and forest lands of the Republic of Armenia, consistent with the national forest policy and strategy.

New Projects

The Program of Activities and Initiatives of the Government of the RA for 2019-2023, stipulates the development of several strategic documents in the course of the coming 5 years, namely:

- **in 2019** – the sustainable development strategy of the Agriculture of the RA with the vision of 2029;
- **in 2019** – the draft of the Law of the RA «On making changes and amendments in the Forest Code of the Republic of Armenia».

Research and Analysis

- ✓ **Sustainable, Inclusive Agricultural Sector Growth in Armenia, Lessons Learned of the Growth and Reduction Recent Experience, WBG, 2017.**
- ✓ **Gender, Agriculture and Rural Development in Armenia, FAO UN, 2017.**
- ✓ **The Modernization and Commercialization of Agriculture in Armenia, WBG, 2016.**
- ✓ **Reducing the Climate Change Vulnerability of Armenia's Agriculture, WBG, 2014.**
- ✓ **Building Resilience to Climate Change in South Caucasus Agriculture, WBG, 2014.**
- ✓ **Armenia - Climate Change and Agriculture, Country Note, WB, 2012.**

INDUSTRIAL PROCESSES AND PRODUCT USE
(specific weight in the total GHG emissions is 7.5%)

Within the sector – From mining industry (mainly from the production of cement and inductrial clinker) - 31.1%, from materials destroying the ozone layer (mainly from refrigeration systems) - 68%

The Export Oriented Industrial Policy of Armenia was approved by the Government of the RA by the session decision N 49 of December 15, 2011. The document defines the main problems of the construction material production industry, the high cost of communication and the limitations of trade on the regional level. At the same time, the document prescribes the main directions of support to the sphere, provision of availability of markets and development of exportation capacities.

The Concept of Mining Industry Development, that was approved by the session decision of the Government of the RA, N 36 of August 24, 2017, is aimed at supporting the sustainable development of the sphere by revealing the current issues, as a basis for devising the mining industry development policy and strategy.

New Projects

The Program of Measures of the Government of the RA for 2019-2023 stipulates development of a number of documents in the course of the coming 5 years, namely:

- **in 2019** - the Industirial Policy Strategy and Program of Measures
- **in 2019** – The Mining Industry Strategy.

Research and Analysis

- ✓ **Global CO2 Emissions from Cement Production, 1928-2018, R. Andrew, 2019**
- ✓ **Comprehensive Study of Manufacturing Industry of Armenia, Avenue Consulting, 2016**
- ✓ **Armenia - Strategic mineral sector sustainability assessment, WBG, 2016**
- ✓ **Armenia - Export-led industrial development strategy: implementation review and recommendations on new toolset, WBG, 2015**
- ✓ **Armenia: Sustainable and Strategic Decision Making in Mining, WBG, 2013**
- ✓ **Fostering entrepreneurship in Armenia, WBG, 2013**

WASTE MANAGEMENT
(specific weight within the total GHG emissions is 5.85%)

Within the secotr – Household solid waste decomposition - 66.78%, wastewater recycling - 29.78%

The Strategy of household solid waste management system building for 2017-2036 for the Republic of Armenia. The document was approved by the session decision N49 of the Government of Armenia of December 8, 2016. The priority goal of the strategy is to create a solid waste management integrated system meeting the EU standards, which will provide cost-efficient, technically, financially and environmentally sustainable services to subscribers.

The Concept of Implementing Systems for Raising the Responsibility of Manufacturers (Importers) for Certain Types of Goods and Products. This document was approved by the session decision of the Government of the RA, N 15 of April 13, 2017. It is assumed that the implementation of the concept will allow Armenia to implement a «Reasonable System of Recycling the Out-of-use Goods and Products Harming the Environment «.

The purpose of devising the document for the definition of «The Rules of the Use of Sewerage Sanitation and Waste-water Cleaning Systems « which was approved by the Decision of the Government of the RA, N1228-N of August 28, 2003, is to provide a decent level of management and usage (maintenance) of the sewerage and waste-water sanitation and recycling systems, with correct organization of the cleaning and recycling structural facilities, creating conditions for raising the productivity level of their operation and the organization of the laboratory-operational and technological control over their operation.

New Projects

The Program of Activities of the RA for 2019-2023 stipulates to develop a number of strategic documents in the course of the next 5 years, namely:

- **in 2019 –** Waste collection system strategy.

Research and Analysis

- ✓ **Reforming Sanitation in Armenia, OECD, 2017**
- ✓ **Qualitative Analysis of MSW in Armenia, Croatia, Cyprus, F.Y.R.O.M. and Ukraine, T.Lolos, 2016**
- ✓ **Armenia - Water sector tariff study, WBG, 2015**
- ✓ **Recycling of Household Waste in Armenia, FEAG, 2011**
- ✓ **Armenia - Water Sector Note, WB, 2011**

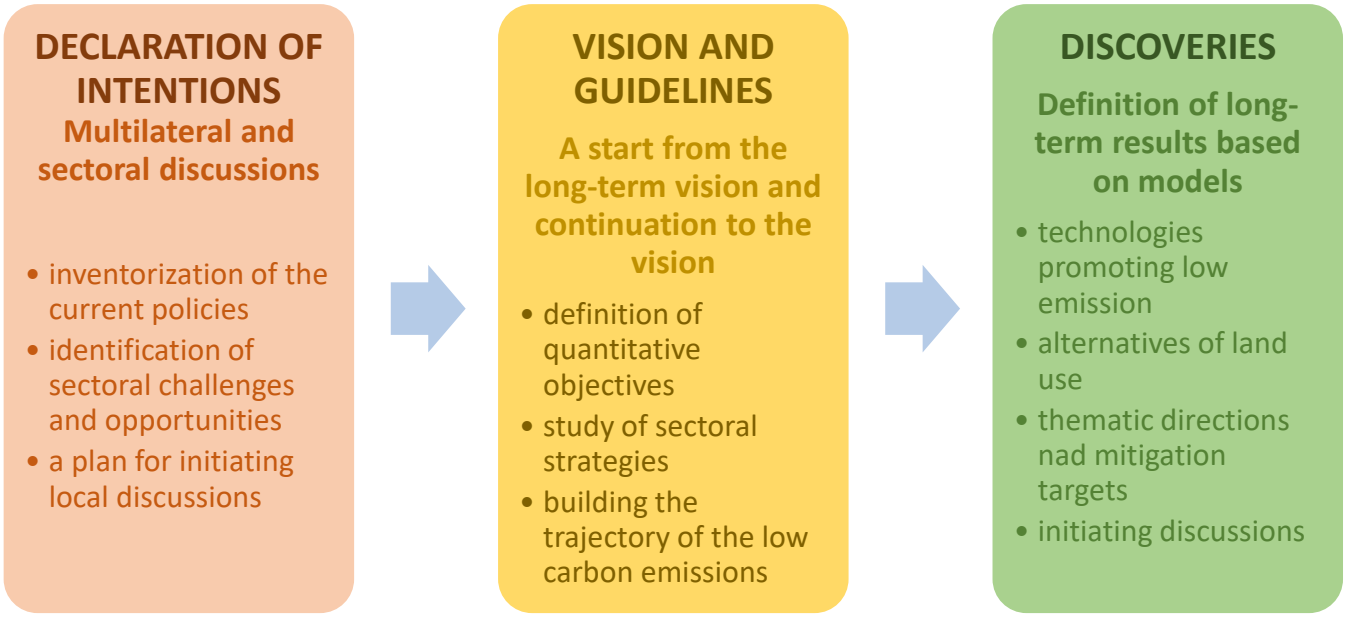
INITIATING ARMENIA'S LEDS DEVELOPMENT PROCESS

The study of the international experience and the discussion of the methodological considerations, presented in the previous chapters of this text are generally guiding the understanding of the implementation process for developing a LEDS in Armenia. The process includes a range of activities that shall be implemented by a phase-by-phase approach and launched in conditions of possibly wider inclusive participation (Figure 1).

The range of activities of the first pahse, the productive launch of which will demand a strong political will shall consolidate the potential partners, policy-makers and beneficiaries. In order to make this come true, we suggest to submit the current document to the Office of the Prime Minister of the RA or the Office of the Deputy Prime Minister of the RA and with the recommendation of the latter also to the main partner government bodies (the list is attached below), anticipating a preliminary, specifically united understanding of the topic and the recommendation of responsible doers, who will be correspondingly involved in four sectoral working groups. The three sectoral groups will work in the sub-branches of energy industry, and one sectoral group in the sphere of agriculture.

The next phases of the sectoral group-work shall involve the research facilities and professional structures to discuss the results of quantitative estimates and scenario analysis. The outcomes will be regularly reported to the Prime Minister of the RA and the corresponding platforms of climate change discussion and/or coordination of the strategic planning.

Figure 1. The phases for developing a LEDS.



Main Partners

As stated earlier, the processes for the development and implementation of a LEDS assume the active participation of a wide circle of partners. The partner structures shall represent the public and private sectors, political and civil society institutions, each of them within their authorized mandate and the role reserved within the framework of this process.

Concurrently, it is assumed that the ministries will be the linking chain that will facilitate the involvement of representative of the private sector operating in the corresponding fields of activity, also the unions, associations and social structures representing their interests, and the research institutions. Thus, the main partner structures in the public sector are listed below.

The Ministry of Environment of the RA, as the public body devising and implementing the Government policy in the spheres of preventing or mitigating the negative impact on atmosphere, water resources, soil, forests and specially protected natural territories, solving the climate change problems, including the adaptability, arranging the performance of the monitoring of sustainable management of the specially protected natural territories, forests and the environment, the special and regular observations of the hydro meteorological phenomena, studies and forecasts, and the coordination of the work of actively influencing the atmospheric phenomena.

The Ministry of Territorial Management and Infrastructures of the RA, as the public body devising and implementing the Government policy in the spheres of territorial and infrastructural management, energy, security in the spheres of nuclear energy, renewable energy and energy consumption, supporting the development of the energy independence of Armenia, energy-saving and energy-efficiency, managing the water resource systems.

The Ministry of Economy of the RA, as the public body devising and implementing the Government policy in the spheres of different branches of the economy, including raising the industrial competitiveness, the productivity of cattle-breeding, agricultural food, and public support to the development of the agriculture.

Definition of Goals and Objectives of Armenia's LEDS

While discussing the structural components, we mentioned that the quantitative definitions connected with the anticipations of the development of GHG low emissions and resilience, in the form of objectives and tasks, is the best way for transferring the strategy to the sectoral level. Concurrently, the LEDS can integrate also the development goals and tasks that are in accord with the long-term development vision of the country. The sectoral guidelines of GHG emissions for long-term development goals and the identification of the potential for implementing the transition will be accomplished through professional discussions and modelling exercises in the 2nd and 3rd phases of developing the LEDS, as shown in Figure 1. The planned sectoral working groups will discuss the results of the work accomplished by the professional circle and will arrange also public discussions.

In different phases of accomplishment and addressing different sectors of development, this processes will be supported by the programs implemented by different development partners of the Government of the RA, in particular, the UNDP, by mutually supplementing each other and providing the maximum synergic results, namely:

The Third Biennial Update Report of Armenia, (BUR), GEF Trust Fund, UNDP. The BUR3 will support the further improvement and strengthening of the reporting process. The work on improving the quality of the management of the GHG cadaster will result in replenishing the missing data, improvement of the analysis of the main categories and assessing the contingencies, will support the process of data collection, compilation and verification for the preparation of the GHG national cadaster and the development of institutional mechanisms and will reduce the time required for data collection. The reports in respect of the mitigation made in the framework of the BUR3 will include the assessment of the progress of 2015-2018 policies and actions implemented in the country, as well as they will

assess the energy sphere mitigation scenarios by 2030. For correcting some shortcomings existing in the country in the sphere of developing climate change directed policies, and based on the results and lessons of the process of developing the national program will be officially devised the requirements for the internal monitoring, reporting and inspection model of mitigation arrangements, including the pertinent support.

The National Adaptation Plan (NAP) for planning the progress of mid-term and long-term adaptation in Armenia, Green Climate Fund, UNDP. The program is aimed at supporting the development of Armenia's climate change NAP, keeping in the focus of attention the strengthening of the core capacities. The goal of the program is to eliminate the existing obstacles and support the identification of investment priorities in the prevalent six spheres of the climate change adaptability and increase the accessibility of financial resources to implement the urgent actions stipulated by this program. Along with the development of the NAP process, the basis of systemic and regular updating of specific actions supporting the identification of the mid-term and long-term risks, the climate change adaptability priorities, and the climate change adapted sustainable growth. Concurrently, in the framework of adaptation of the sustainable growth goals, the NAP process will support building the corresponding targets responding to climate change.

«EU for Climate», EU-UNDP Regional Program. The goal of the program is to support the development and implementation of climate policies by the East Partnership countries, which fosters the low emissions and climate change resilient development and meeting the commitments taken by the Paris Agreement. The current document was prepared under this program, for guiding and leading the LEDS development process. In this respect the Program will do the following:

- arrange the sectoral working groups and will coordinate their work;
- devise the LEDS development action plan;
- develop the methodological guidebook;
- involve corresponding experts, who together with the sectoral working groups will provide the sectoral research;
- arrange discussions, conferences, round-table meetings;
- provide the connection with other programs, namely, in respect of sharing information, knowledge, results of studies and analysis;
- implement the process necessary for the final modelling of the LEDS project.