

# Social Reforms II



# in Armenia



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# Social Reforms **in Armenia**

## II

Hrayr Maroukhian Foundation

Yerevan

September

2012



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# Preface

The task of nation-building following the collapse of the Soviet Union for the newly created independent republics that emerged has not been easy, nor has it always been effective. Rebuilding and reconstructing state institutions, creating a developmental road map for recovery, setting an equitable and efficient economic program, ensuring stable, socially just and inclusive societies have been hampered oftentimes by a confluence of opposing and conflicting interests, both nationally and regionally. In this context, effective and efficient policy solutions to address these problems have not always been developed or implemented.

In 2011, the Hrayr Maroukhian Foundation (HMF) with the financial support of the Friedrich-Ebert-Stiftung (FES) of Germany published, “Social Reforms in Armenia,” the objective of which was to present groundbreaking policy papers to address the inherent problems in three critical sectors of healthcare, social housing and employment. This program was in line with the core mission of the HMF: to formulate informed policy solutions, present them to all relevant stakeholders and advocate for their implementation.

Thereby, this initiative was realized to fill the void of public policy discourse in the country, which continues to contribute to mounting social exclusion and polarization in society. We hope it will help broaden the scope of diverse approaches and begin to close the gap that exists between current government practices and the expectations of citizens for better access to services. When citizens are left out of the decision-making process they become further alienated from all political, economic and social processes. If the government of Armenia wants to mitigate the dangers of social exclusion, disillusionment, migration and lack of trust in the authorities, it must allow for a broader public discussion of those issues which directly impact the lives of its citizens.

This second volume, “Social Reforms in Armenia II” aims to continue in this vein and here the reader will find viable, applicable policy solutions that will address critical problems and shortcomings in yet another three spheres of national importance. The first paper, “The Republic of Armenia’s Strategy for the Development of Agriculture” underscores the critical importance of productive, efficient agriculture as a key precondition for economic development and presents a strategy for the coming decade in the agricultural sector. The second, “The Main Issues of the Development of the Mining Industry in Armenia,” includes the economic potential and basic issues of development and the legal regulation of the mining industry. The third paper, “The Social Protection of Teachers in the General Education System of the Republic of Armenia,” evaluates the current issues of the social security of teachers in the RA public education system, reveals the infringements of their social rights and makes recommendations for their improvement.

Applying best practices and evidence-based research to help understand these issues and to explore the implications of this research for the design and implementation of policy initiatives will lead to more modern policy-making. It will result in better public services, foster broader involvement of the public in the decision-making process, encourage greater citizenship and better utilize creativity in organizations and communities and the final result will be securing public confidence through greater transparency.

Both the Hrayr Maroukhian Foundation and the Friedrich-Ebert-Stiftung stand firm in the belief that the objective of coherent public policy is to identify and solve problems, and by doing so improve the lives of citizens, contribute to their quality of life and ensure a just and socially sustainable society.





# The Republic of Armenia's Strategy for the Development of Agriculture

## Introduction

Agriculture is one of the most important sectors in the Armenian economy. Productive agriculture is a key precondition for economic development, food safety, higher standards of living and increase in the quality of life for the country's rural population. However, agricultural production is risky due to its dependency on natural factors and the inflexibility of its demand. It is noteworthy that while in other businesses unsuccessful entrepreneurs may suffer from a temporary reduction in revenues, or may leave that business, in agriculture unprofitable production with the limitations of entrepreneurship alternatives and the absence of state support, serve as an impetus for farmers to leave their villages. Consequentially, the absence of inhabitants in rural regions is a serious threat to a balanced development of rural regional economies and to the effective utilisation of production potential. Therefore, Armenia's geopolitical position and state security interests require the implementation of a prudent agrarian policy for strengthening rural communities, efficient management of demographic processes and raising the level of food security.

At the start of the 1990s, up until the collapse of the Soviet Union, unprecedented agrarian reforms were initiated. Upon overcoming seventy years of state monopoly, land and basic means for agricultural production were privatised. Legislative bases were created for private ownership and multiple forms of economic management, price liberalisation, the banking system, and the privatisation of production and social infrastructures. The main guidelines for authorities of newly-independent Armenia were economic reforms based on the advantages of private ownership and a self-regulating market economy. However, those reforms were proceeding under conditions of damaged economic links formed over the previous decades, a blockade of communication routes to the outside world and the struggle to liberate Artsakh, as a result of which numerous issues arose.

To resolve those issues a focused and consistent agrarian policy needed to be realised, of which the main vector was to be state support for agriculture. In the last two decades, the Armenian government has implemented mostly short-term and small scale assistance programs. These have not secured sustainable agricultural development or the development of villages.

Taking into account international practice and the achievements and shortcomings during transition to free market economic relations, a strategy for rural and agricultural development of the Republic of Armenia has been developed. This strategy can serve as a guiding document for the development and implementation of an agrarian policy for the period of 2012 to 2022.

## Chapter 1. Evaluation of the current state of development of agriculture and rural regions and their obstacles and issues

### The initial state of agriculture

Agriculture is one of the most important sectors in the Republic of Armenia's economy in which 17% of the country GDP and 45% of the total employed are constituted.

Even before the collapse of the Soviet Union, the Republic of Armenia was declared an independent state when, on September 21, 1991, the people of Armenia realised their right of self-determination by a referendum. The new authorities of the country, who had experienced a centralised-planned economy for around seventy years, preferred an economy oriented towards a free market and employed the initial steps towards economic reforms. Within the frameworks of this process, particular attention was paid to agrarian reforms. Privatization policies for land and means of agricultural production, servicing infrastructures, and organisations selling agricultural produce and processing raw materials were adopted.

860 large state and collective agricultural enterprises which operated in the agricultural sector during the final years of the Soviet Union were liquidated from 1991-1992. In their place around 340,000 household farms have now been formed. The latter have been given ownership of over 82% of arable lands, 75% of perennial plantations and 50% of meadows. The creation of this large quantity of farms has resulted in extreme fragmentation of lands. Only 1.4 hectares of land falls into each household farm, including around 1 hectare of arable land. Numerous problems arose after the agrarian reforms because the technical, technological, marketing and organizational systems had corresponded to the standards of large agricultural enterprises. Effective solutions to these have still not been found. This was further aggravated by the fact that after the privatisation of land, there was a prolonged process of privatisation of other sectors in the state agro-foods complex, the processing, production and technical service implementers. This resulted in their dissolution and a significant loss in production resources. The formation of market economic relations required relevant market infrastructures, particularly the establishment of credit, insurance and agrarian market institutes. However, these processes were also being delayed, as a result of which the anticipated agrarian reforms did not produce the desirable effects. Yet, due to the agrarian reforms and the support of the international community, during a considerably hard period for the Republic of Armenia from 1991 to 1995, the issues of employment and food security were resolved to a certain extent.

The main priority of the government's agrarian policy in the second phase of the agrarian reforms (1996 -2000) was the activation of industrial and social infrastructures in the agricultural sector. The establishment of the financial market and the partial recovery of the agro-processing sector's capacity contributed to this.

In the past decade, signs of stable economic growth in agriculture and an increase in the competitiveness of individual productions are noticeable. However, the global crisis growing alarmingly since 2008 also negatively affected the agrarian sector of the economy. The anti-crisis measures taken by the RA government were not on a large scale and were not able to halt the economic decline

of the agricultural sector. Particularly, in 2010 the volume of agricultural production dropped by 13.4% which seriously inhibited the economic growth of the republic.

Natural factors largely affect the sustainable development of agriculture. However, as international experience shows, state support tools for long-term targeted policy, and the development of technical, technological and insurance systems are important for risk management.

The majority of the RA government's agrarian policy projects are short-term and in some cases episodic, thus they are not taken on their

◀ Although the loans allocated to agriculture by business banks and credit companies are increasing annually, they fulfill only 10% of the demand

true merits by agricultural entities and do not secure the anticipated results. In the recent decade only the “Vaccination of farm animals” and “Measures for the protection of plants” projects are financed annually within the framework of state support. In addition, up until 2008 they were being implemented using funds from the “European Union Food Support” project aiding the RA, as a result of which the management of the project was being improved with UN FAO technical assistance, and the financing was being justifiably increased. In 2010, the financing of the former project was reduced by over one third and the latter by 50%. The “State support for agricultural land users “ project of 2007–2009 which gave a 35,000 drams subsidy per 1

hectare to household farms for planting cereal crops in the more risky regions of the republic, manifestly stimulated economic activity in the relevant rural communities. However, in 2010 without valid reason it was not considered expedient to continue the program, and the direction of the program was changed and financing was reduced nearly three times. This kind of strategy undermines the state agricultural assistance policy and weakens the business capabilities of the beneficiaries. In general, economic developmental patterns require that state assistance of the agricultural sector be increased within the framework of the crisis prevention policy. However, in 2010 the state budget financing for the agricultural sector was reduced by 34.6% as compared to 2008. Over the same time period, the state financing of the irrigation system increased by over 2.7 times.

From 1991 to 1997 the level of utilisation of production capacity and production volumes in the agricultural raw materials processing system abruptly dropped. However, since 1998 with additional investments, higher product competitiveness and increased exports, the situation in this system has noticeably improved. In 2010, the food industry constituted 33.7% of the RA industrial GDP, and 51% of all processing industries.

The increased activity of the agricultural products processing system and the increased volumes of export have eased the problem of sales of agricultural products and raised the level of the efficiency of agricultural enterprises.

Positive shifts would be more noticeable in this area if the issues of agricultural loans and risk insurance were fundamentally resolved. Although the loans allocated to agriculture by business banks and credit companies are increasing annually, they fulfil only 10% of the demand. Nevertheless, a system of service and marketing infrastructures is gradually being shaped which corresponds with the principles of a free market economy. An important achievement is the change in mentality and behaviour of business entities where the producer no longer links the solution of his industrial problems entirely to state patronage. Nevertheless, agricultural efficiency is still extremely low as is the rural population’s primary and sometimes only income from agriculture. Therefore, it is no coincidence that over the past three decades the principle of multi-functionality of agriculture has been adopted in many countries and the state’s agrarian policy has been adapted to comply with the requirements of that principle. In other words, agriculture is considered not as an ordinary sector of material production, but a unique sector whose function is not limited to the production of agricultural products. Beyond this important function of supplying agricultural products, it contributes to

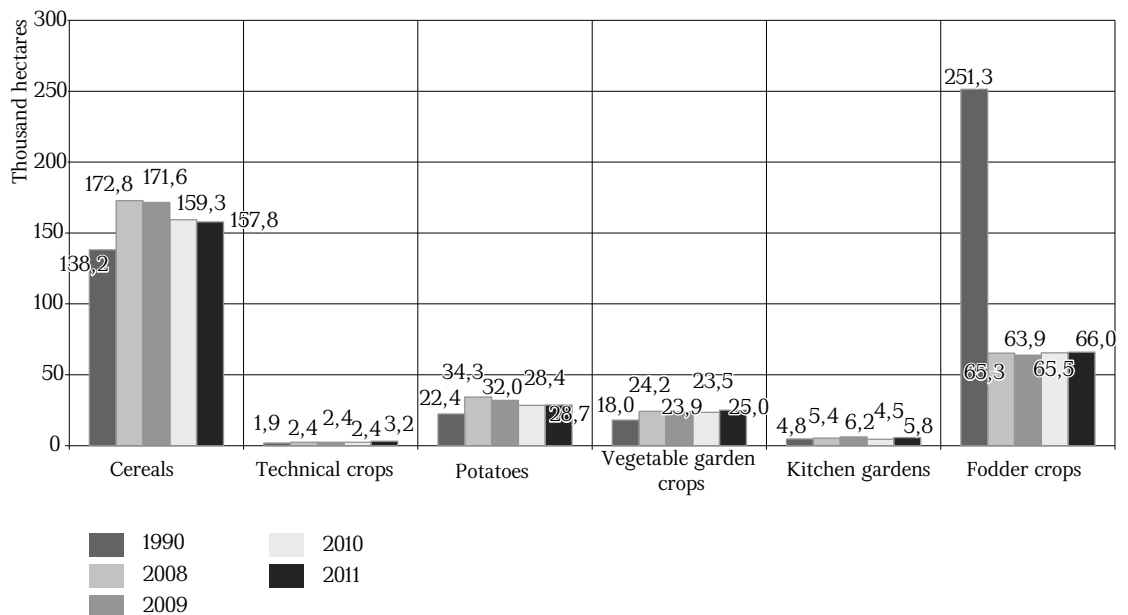


As international practice shows, state support tools for long-term targeted policy, and the development of technological and insurance systems are important for risk management

the development of rural regions, the protection of the environment, particularly rural landscapes and recreational resources, the regulation of demographic processes, and the protection of the national character, lifestyle, customs and traditions.

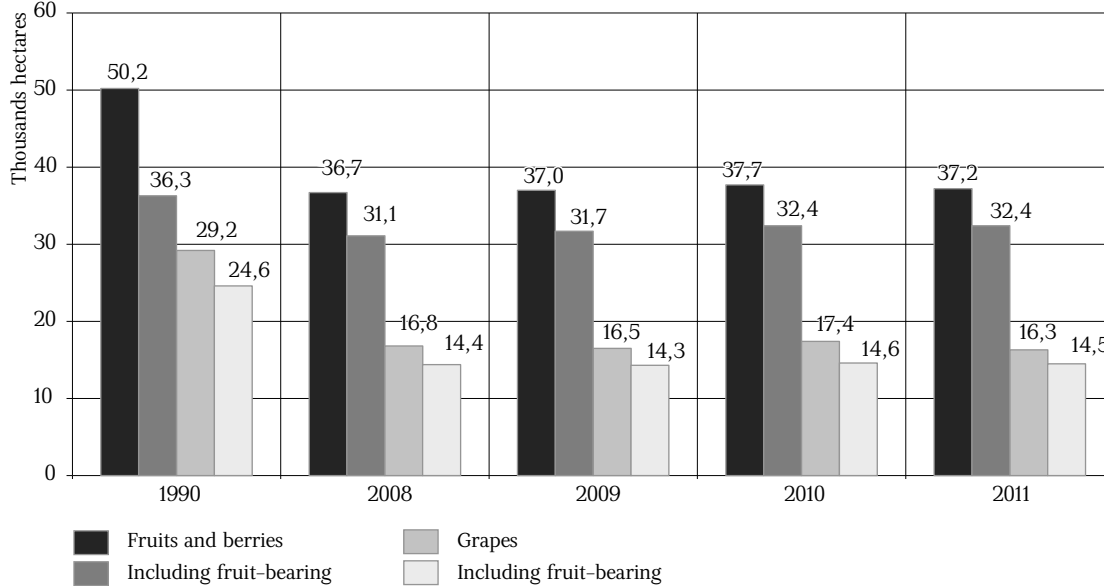
The basic process in the initial phase of the RA agrarian reforms was the privatization of land. This was achieved based on the principles social justice and ensuring the same baseline conditions for all villagers. Since agricultural land is classified into five categories, taking into account the necessity to create equal opportunities, the land due to each rural family was made up of three to four plots from different segments that fell under the authority of the administrative territory of the community. As a result, plots of household farm land were broken into even smaller sizes. For this reason massive plots of land were sometimes fragmented and now the small sizes of household farms are a serious impediment to the efficient management of agricultural production. On average, a household farm has 1.4 hectares of agricultural land, including 1.1 hectare of arable land which is insufficient for improved of the social needs of the family and for the investment of intensive industrial equipment. In addition, in individual cases there is no economical justification for the cultivation of all plots of land, each at a considerable distance from each other and with different levels of fertility. As a result, in a land-scarce country such as Armenia, where agricultural land is 0.65 hectares per capita, almost 35–37% of arable land is not being used for its intended purpose. Consequentially, the areas for agricultural crops and perennial plantations in 2011 have decreased by 31.3% and 32.6% respectively (see Diagrams 1 and 2).

Diagram 1. Agricultural crop planting areas



Analysis shows that according to the average data for 2008 to 2010, by not using arable lands and perennial plantations to their full and intended potential, agricultural farms have not received 193 billion drams, which constitutes over 50% of the gross domestic product for plant growing.

Diagram 2. Areas of perennial plantations



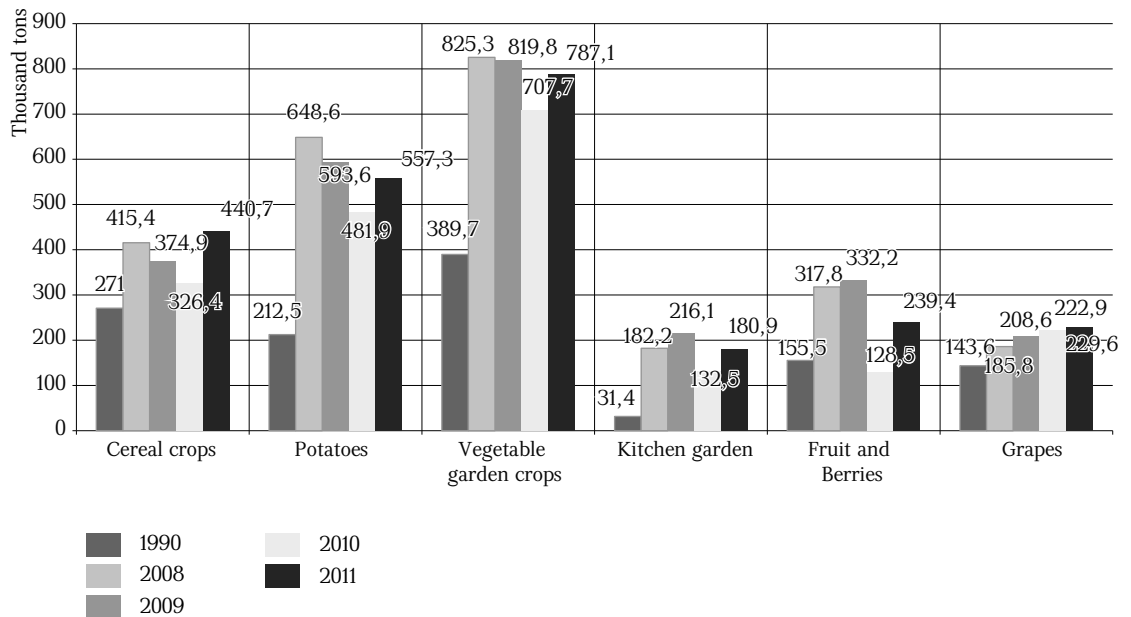
The harvest of agricultural crops is still low, mainly due to the insufficient level of intensiveness in production. In the last 10 years the use of mineral fertilizers has decreased by 10 times, organic fertilizers by 18 times and the use of pesticides has been reduced by 10 times. In the mid-1990s, with the exception of the Gyumri selection station and agricultural scientific centre, the cereal crop seed producing establishments were dissolved. As a result, only 10–12% of the sowing areas for cereal crops were growing high yield seeds. The 1–1.5 thousand tons of high yield autumn sowing wheat and 2 thousand tons of barley seeds which were imported from Russia between 2010 and 2011 cannot ensure a significant rejuvenation of variety. Therefore, priority must be given to the local development of a modern system of seed breeding. In this regard, there have been noticeable advancements in potato seed breeding. An efficient system has been created as a result of Dutch and German high reproductive planting material imported by private seed producers and their local propagation.

The situation is grave in the field of agricultural machinery and maintenance services. Currently, 90% of the agricultural machinery and equipment have been in use for 20–30 years, which is why they are in poor working condition and have low productivity.

In the last 15 years significant work has been done with state assistance towards the renovation and development of the irrigation system. There is still a lot to do in this sphere. The system created in the soviet period was very costly, since with low energy costs, mechanical irrigation prevailed. Currently, large investments are being made to transition to irrigation by gravity and to maintain the system. The allocation from the state budget to the irrigation system is almost twice the total of all other projects in the agricultural sector, yet in practice only around 156 thousand hectares of the 232.9 thousand irrigable lands in the republic are being irrigated.

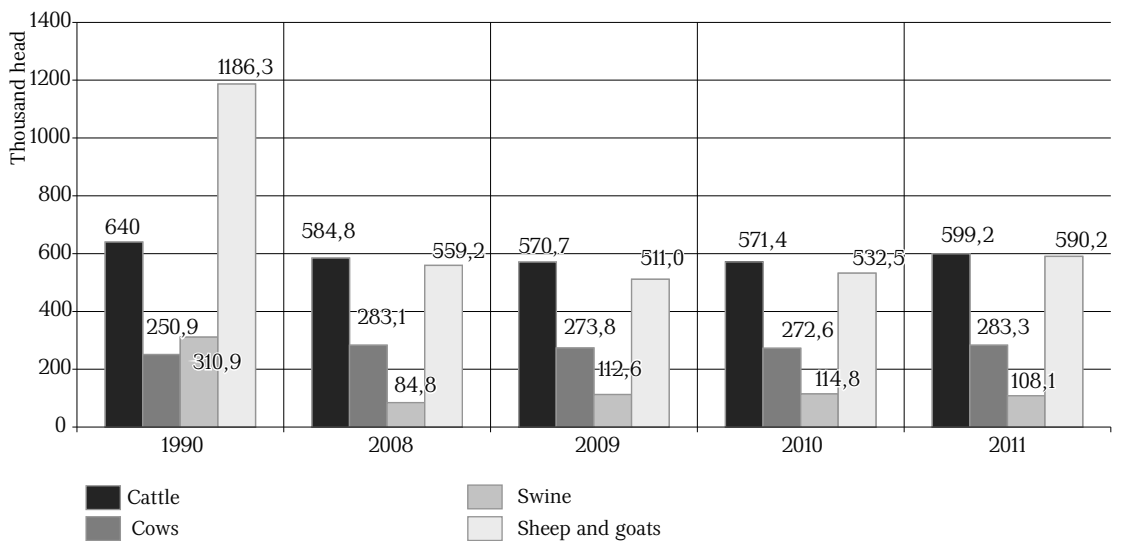
The gross harvests of cereals, vegetables and potatoes have all increased due to the increase in cultivated lands and, to a certain extent, an increase in intensiveness of production. There are some improvements in terms of intensification of viticulture (Diagram 3).

Diagram 3. Aggregate yield of agricultural crops.



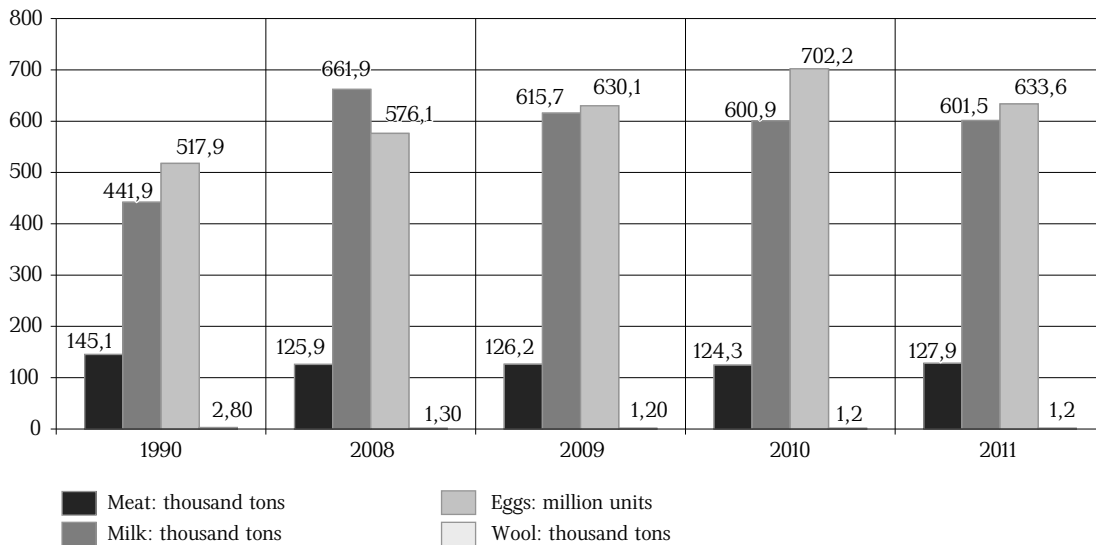
The area where fodder crops are being cultivated has been reduced over 4 times compared to 1990. Only 35% of natural pastures and 60% of meadows are being intensively used. The main reason is the elimination of the previous irrigation system of distant pastures as well as an absence of easy road access. As a result, the pastures adjacent to the villages are severely overloaded, which has become a threat to the bio-diversity of genetic resources and has increased the erosion of soil. There is also a considerable economic loss. Analysis shows that as a consequence of low utilisation of the natural pastures, the loss of hay is calculated at 845 thousand tons, equalling a value of over 25 million drams annually.

Diagram 4. The animal head count of the Republic of Armenia (as for year end).



Apart from the lack of a stable fodder base, the animal rearing sector is hindered by severely limited state assistance for the development of animal breeding and the veterinary system.

Diagram 5. Production of animal products and by-products.



In addition to the aforementioned issues, there is the difficulty of shaping a market for agricultural produce. On the one hand this is due to the low solvent demand in the local market and on the other hand the absence of buyer-seller infrastructures for agricultural produce, the slow process of their formation and also the difficulties of exporting.

According to 2004–2008 data, food and agricultural raw materials constitute 14.3% of exports and 17.1% of imports in the foreign trade commodity structure. According to 2008 data, the value of imports is 4.2 times greater than that of exports, and 4.3 times greater in food and agricultural raw materials. Furthermore, cognac constitutes more than 64% of exports in this group, which raises the issue of export diversification. Therefore, the increase in volumes of agricultural products and improvement in the balance and structure of trade are also considered strategically important issues.

The demand for loans by agricultural business entities remains unsatisfied. In particular, villagers are in severe need of working capital yet the lending terms and conditions of the existing banking system, the framework of collateral, length of loans, interest rates etc., are inaccessible for the majority of household farms.

Agriculture is a risky sector and suffers significant losses each year due to natural disasters. Therefore, the implementation of measures to ease these risks and the introduction of an insurance system is important. In recent years a certain amount of attention has been given to the use of anti-hail stations and the introduction of a radiolocation meteorological system. Considerable work has also been carried out in areas at risk of flooding through the implementation of anti-flooding activities and an effort against soil erosion.

Agriculture carries a significant weight in the incomes of the rural population of the RA. However, the low level of soil use, the low indicators of crop and animal productivity, the small capacity of the domestic market and the difficulties of exporting do not allow for increasing agricultural incomes. Under these circumstances there is an increase in rural poverty and rural migration particularly amongst the youth.

## 1.2. Evaluation of the development of rural regions

The current development of the rural regions in Armenia require the implementation of projects to overcome poverty, develop social and industrial infrastructures and raise the employment level of the rural population.



Compared to Yerevan and suburban communities, the development of other regions (marzes) is considerably low

Under conditions of limited finances, the regional development policy being implemented by the RA government, regional administration and local self-government bodies, has been mainly directed towards creating basic conditions for the activities of the rural population. Several focused projects have been developed and implemented. These are aimed to improve the health, education, utilities, energy and other social and industrial infrastruc-

tures in the RA regions (marzes) as well as the development of spiritual and cultural spheres. Certain work has also been implemented in the RA regions (marzes) towards developing and implementing individual communities. They include concrete measures aimed at the restoration of irrigation networks, gasification, reconstruction of community roads, renovation of school buildings, upgrading equipment of polyclinics, hospitals, and primary care facilities, and the overall improvement of the rural population's living conditions. The projects for developing rural areas have been realised by the state budget, community budget, loans, and contributions from donors and the private sector.

Nevertheless, there is still the important issue of proportional development. Compared to Yerevan and suburban communities, the development of other regions (marzes) is considerably low.

The unbalanced regional development worsens social conditions of the rural population and results in a steady increase in migration. The high level of poverty and unemployment of the population in areas relatively less favourable for economic activity is striking. Areas closest to the border, alpine and mountainous areas are classified as unfavourable. Due to low investment attractiveness, these areas have minimal potential for entrepreneurship and few opportunities to increase the income of the population. However, some clauses promoting the development of unfavourable areas have been stipulated by several legal acts. Some of these are:

- The RA Land Code stipulates that state and community owned land in regions close to the border, mountainous, alpine, disaster areas and abandoned settlements be donated to families for agricultural activities, home plots or for building houses. Those families must not have previously taken advantage of land privatisation, or acquired land for construction of a house.
- In the RA Law "On Education", privileges are stipulated for teachers in state secondary schools throughout border, mountainous, and high mountainous regions.
- The conceptual program and schedule of measures for resolving the priority issues of the RA border and alpine communities was approved by the RA government's April 21, 1999 decision No. 246.
- The measures for the development of mountainous communities, and the principles for the implementation of those measures, were approved by the RA government's March 22, 2001 decision No. 222. These include: the strengthening of scarcely populated communities, the expansion of transport and engineering infrastructural networks, and so on.
- In order to strengthen the border zone areas, the approval of the RA law (2002, May 20, HO-356-N) "On the RA comprehensive development plan for the border areas of the RA" is especially important, with its addendums and amendments.

Nevertheless, the measures being initiated are still not enough to essentially improve the social-economic conditions of the unfavourable areas and to resolve the issue of unemployment.



### 1.3. Lessons from international experience

Radical reforms to Armenia's agriculture, including the privatisation of land, elimination of state monopoly over the power to purchase and supply, the liberalisation of prices, etc., together with the advantages of private entrepreneurship and market competition, gave rise to several issues which are difficult to overcome without state regulation and measures supporting agriculture. A study of international experience shows that all the basic characteristics of agriculture are common in almost all countries; therefore the issues pertaining to them and their resolutions may be similar. Having no intention of blindly replicating the experiences of developing and developed countries, and realistically evaluating the government of Armenia's transfer potential, it is proposed that lessons be taken from international experience in state agricultural regulation and be applied according to local characteristics and capabilities.

Currently the top priority of the RA agrarian policy is of food security for the country. This is the most important social, economic and political issue. It requires the country's economic condition to be able to provide all levels of the population with accessible, financially obtainable and quality food that meet the right quantity and variety based on physiological norms. For Armenia, as a land-locked country under blockade with limited alternatives, in a region rife with conflicts, food independence is of vital importance, meaning no less than 80% self-sufficiency for basic foodstuffs. Whereas, according to the mean data of 2005–2010, the self-sufficiency of wheat was 36.7%, vegetable oils 4.3%, sugar 7.7%, pork 35.1% and chicken 16.2%. It is obvious that the instability of the international food market and the absence of stable peace in the region, these indicators are a serious threat to the country's food security and even to its national security. The only way to increase the level of self-sufficiency of food is to replace importation with local production; in other words, the development of the agricultural and food production sectors. Unused resources are available in this regard. 60% of arable lands and 17% of irrigation water resources are being used and 35% of the rural labour force. In order to realise these possibilities, it is necessary to raise the level of investment attractiveness and competitiveness of the sector.

The experience of countries that have experienced similar situations and moved towards sustainable development is instructive.

Since the flexibility between the prices of agricultural products and sales volume is small, the increase in cost of means of production directly leads to the reduction of income in rural economies and the reduction in production volumes. In numerous countries around the world, this issue is resolved by direct and indirect price regulation.

The content of agrarian policies currently being implemented in economically developed countries is mostly consisted of provisions for different kinds of subsidies, grants and privileges. The state support provided to the agricultural sector by the countries exporting large agricultural goods (USA, Canada, and the EU countries) has played a considerable role in raising the productivity and efficiency of agricultural production and in boosting the development of the industrial production process.

In developed countries state support is provided both directly and indirectly to farmers.

Direct forms of support are:

- a) Direct state monetary compensation.
- b) Compensation payments for damage caused by natural disasters.
- c) Compensation payments for losses caused by the reorganisation of production (i.e. reduction in planting areas, mandatory slaughter etc.)

Indirect forms of support are:

- a) Intervention in market food prices by means of quotas, tax policies and tariffs.

b) Partial reimbursement of fertiliser, fuel, and pesticide costs, as well as partially subsidising interest rates of loans.

c) Supporting the development of the market by compensating transport and storage costs of agricultural products.

d) Support the development of infrastructures by subsidising or compensating construction of irrigation systems, measures for land improvement, and formation of villager cooperatives and unions.

In economically developed countries, price regulation mechanisms carry a considerable weight within the state support system. In developed market economies active state intervention in price determination and regulation is considered to be a modern approach to pricing of agricultural products.

a) The state strives for highest and lowest price limits and also sets indicative or conditional prices.

b) The purchase and sale of those agricultural products that are subject to long-term preservation and product intervention in order to maintain desired level of market prices.

In the USA there are two prices in the agricultural support system.

There is the **targeted** (guaranteed) price, which covers the most important agricultural products. Targeted prices are calculated so that farms with middle and low level expenses are ensured sufficient revenue to secure expanding production. Throughout the year, farms sell their produce at market prices which can be higher, lower or equal to the targeted price. In the case of the sale price being lower than the targeted price, the farm received compensation equal to the sum of the difference.

Mortgage cost (mortgage rate): The collateral prices of agricultural products are determined by the state, and are equal to the lower level of the target prices. According to the USA Law on agriculture, farmers are free to dispose of their produce. They can sell it on the free market, sell it by contract and if the market price is lower than the collateral price they can wait until the market price later rises, or use it as collateral for a Commodity Credit Corporation Loan. If they pledge it in the CC Corporation, the farmer has nine months to redeem his produce. In the case of non-redemption it passes to the corporation management and the storage costs (maintenance costs) are paid for with the produce price calculated by the collateral price that the farmer received. If over the nine months the international market prices are lower than the pledge price, the farmer can buy the produce at the international market price. As a result the farm will make a profit from the difference between the collateral price and the international market price.

In the United States the size of the budget expenditures allocated to agriculture depends on the economic condition of the country. In crisis years, volume and value significantly increased, while during periods of stability state support noticeably decreased. The U.S. agricultural budget is directed towards financing the following programs:

- Agricultural research
- Marketing organisation and collecting information about markets and prices
- Loans
- The preservation of lands and their removal from the cycle of use /non-use,
- Price support, procurement and indemnity payments
- Support for cooperatives and market orders
- Subsidies for foodstuffs
- Subsidies for exports
- Global food aid

The mechanism for guaranteed prices of agricultural produce operates in all Western European countries.

Three kinds of prices exist in the Finnish state support system: targeted, endowment and supplementary. Each year the Ministry of Agriculture and Forestry in Finland determines the target prices for agricultural produce with the agreement of the Finnish Central Union of Agricultural Producers. These may be adjusted during the year taking inflation rates into account. The cost price of the most important agricultural product produced under favourable climatic conditions is taken as the base for determining the target prices. For produce grown in unfavourable conditions, grants are allocated. The grant prices are determined using the same procedure used for determining target prices but are only applied to exported agricultural produce. Produce in excess of the designated state quota have supplementary prices which fluctuate according to the situation in the domestic market.

In Europe the sum of subsidies for the agricultural sector constitutes 45–50% of the agricultural production. In Japan and Finland it is 70% and in Russia, only 3.5%. In the EU countries, national grants are allocated within the framework of the pan-European grant policy and closely correspond to their principles. Other assistance which may create more beneficial terms in any EU country is prohibited. Some examples of such assistance include, price intervention, regulation of commodity volumes, and high compensation for exported commodities. Nevertheless, national governments can participate in the implementation and financing of measures that raise the quality of goods, implement veterinary supervision, ensure scientific and technical progress, protect the environment, promote production in regions with unfavourable conditions, and achieve a minimum level of income for small farms.

Although the agrarian policies in European countries are being implemented within the framework of the EU agrarian policy, there are certain differences between project directions and the methods of financing. In particular, state support for production and market development in Denmark, which is trying to be integrated into the EU system, constitutes 1/3 of the entire agricultural budget, while in England and Ireland it is 15–20%. In all the EU countries, around 50% of the total agricultural budget is directed towards the structural policy which includes the enlargement and modernisation of farms, the improvement in land and other agricultural resources, reduction in business costs and the development of unfavourable regions.

Within the framework of the EU CAP, individual countries maintain certain traditional structures of governance in the agricultural sector. For example, in 1955 a law on agriculture was approved upon an agreement between the government of Germany and a German Farmers' Union. This law specifies the foundations of agrarian policy as well as the concrete political measures necessary for its implementation. Since the mentioned clauses of the law are general in their nature, the German Farm-



In all EU countries, around 50% of the total agricultural budget is directed towards the structural policy which includes the enlargement and modernisation of farms, the improvement in land and other agricultural resources, reduction in business costs and the development of unfavourable regions

ers' Union has tried to include specific measures to support them. They were unsuccessful in including clauses that stipulated permanent target prices and incomes; however the state's business, loans and pricing policy creates considerable advantages for the development of agriculture and rural areas. The practice of privileged loans for farmers is particularly informative. Over 1/5 of agricultural loans in FRG are allocated to the "Agriculture," "Young Farmers," and "Renewal of Farms" privileged loan projects. Subsidies here are applied to the interest rates on loans and the funds are provided to the young farmers at only 1% interest over a period of 28 years.

It is no secret that Germany is the main donor country in the EU. Aside from federal subsidies, agricultural support is provided to farmers on behalf of the EU budget. The total support in 2010 was about 12 billion Euros, which constitutes roughly 708 Euros per hectare of agricultural land, and 37 thousand Euro per worker.

The management of the agro-food complex in France is realised by the Ministry of Agriculture and Forestry, the agricultural Chambers and several semi-governmental and professional organisations. The Superior Council for the orientation and coordination of agriculture and food production is the division coordinator of the French agro-food complex. The Council includes representatives of the Ministries of Finance, Industry and Agriculture and Forestry, as well as processors and sellers of agro-food produce. It develops measures for organisation and management improvement of food sub-complexes and corresponds the activities between the production and sales participants and the representatives of state bodies regarding issues of agrarian and food policy decisions, development of external economic activity, financial investments and the introduction of scientific-technical achievements.

The Superior Council regulates the domestic agricultural produce market, pays for its storage, processing and export subsidies, and purchases agricultural produce at the target price.

The Ministry of Agriculture and Forestry coordinates the utilization and management of financial, technical and administrative resources, as well as detects and resolves current issues of quality control of agricultural products, plant protection, preservation of animal health, and the shaping and developing of international corporations.

The French Ministry of Agriculture and Forestry's structure reflects the functions it realises. It includes nine sub-divisions (head administrations, administrations and services) which are equipped with specialised structural units.

At the local level, the management of the agro-food complex is realised by 22 regional and 100 departmental committees. The regional and departmental committees are in direct contact with industrial reprocessing enterprises, farmers and other groups of the rural population.

The peculiarity of the management system in shaping the French agrarian policy is that different professional agricultural bodies play a significant role in it. The more important of these are the system of agricultural chambers and the network of professional unions. The latter's budget is formed from taxes on land-owners, subsidies, and the liabilities and loans of consumers.



In 2010 agricultural support to German farmers was about 12 million Euros, which constitutes roughly 208 Euros per hectare of agricultural land, and 27 thousand Euros per worker

Finland is considered a country self-sufficient in staple commodities. Agriculture constitutes 3% of the country GDP. 190 thousand individuals or 8% of the total employed work in agriculture.

Finland's agriculture is mainly based on family farms. The work of the farming family constitutes 94% of all labour costs. These families basically service their own households themselves.

An essential part of household farms breed animals. 15% of the country's 2.2 million hectares of arable land is used for food crops, 35% for fodder crops and around half for fodder grains. 65% constitutes livestock production, 23% constitutes plants and the rest comes from leasing revenues, agricultural subsidies and different payments made to balance the production of goods.

In Finland, the agrarian policy is implemented by the Ministry of Agriculture and Forestry, with the active participation of specialised and cooperative unions of producers.

The specialised unions regionally defend the interests of farmers in the Finnish agricultural management system. Almost 90% of farmers are members of professional producer unions. The producer unions operate in all communities and defend the local interests of the farmers. The companies are financed by member subscriptions and partly by the actual investment revenue. The government does not allocate sums to the unions.

In the state agricultural management system, the interests of the farmers are protected by the Central Unions of professional organisations and Finnish and Swedish agricultural produce entrepreneurs. The two unions work in close cooperation. The main issue of the central unions is to negotiate with the government and draft agreements concerning the volumes of agricultural produce, fodder prices and farmer incomes. The central unions do a great deal of work towards the dissemination of information amongst farmers, officials, representatives of the economy, trade unions, and the population.

The agricultural cooperatives play an important role in the development and realisation of the agrarian policy. All subsidies and sums for agricultural assistance are paid through the agricultural cooperatives.

Cooperatives are the most active structures in the Finnish agrarian sector. They secure necessary conditions for production, ensure the sale of produce at the guaranteed price and they introduce advances in research and production. Uniting almost all farmers, the cooperatives play a leading role in the shaping and development of economic links between the agrarian sector and other branches of the economy. This applies to both the sales and reprocessing of agricultural products, as well as farms, industrial supply, lending and servicing.

Cooperatives play an important role in the integration of agriculture and the processing sector. Almost all meat processing, milk and milk production enterprises are cooperatively owned. Over 75% of meat and meat products and around 92% of milk and milk products are produced by the cooperatives.

The cooperatives supply the demand for 50% of fertilisers, 65 % of fodder, 40% of machinery and 40% of fuel for the farms.

The state's Ministry of Agriculture and Forestry shape the main directions for economic activity of the industry. The analysis of practical and agrarian production issues is carried out through negotiations and agreements between the government, professional producers and agricultural cooperatives (production level). That type of cooperation allows the development of optimal conditions for the efficient activity of household farms and the limiting of state administrative interventions in agricultural production.

Thus, a study of international practice shows that state regulation and support of agriculture is an economic priority in almost all countries of the world. At the same time, the management of agriculture ensures effectiveness of cooperation between civil society and state regulatory bodies.

## Chapter 2. Strategy objectives

Within the framework of this strategy it is proposed that the 2012–2022 agrarian policy concentrate on the following objectives:

1. Increasing agricultural competitiveness and harmonious development of agricultural trade organisations, cooperatives and family household farms, through the continuity of agrarian reforms and multi-faceted state support,
2. Ensuring food security and increasing the level of self-sufficiency for food,
3. Overcoming poverty and managing migration in the rural population by expanding small and medium enterprises, developing social and industrial infrastructures and expanding non-agricultural employment,
4. Realising state support projects for the intensive development of plant-breeding and animal husbandry sub-sectors and increasing the productivity level of manufacturing resources,
5. The prevention of agricultural risks, introduction of an insurance system, activation of innovative investment activities, and realisation of venture capital projects based on the development of public-private partnership and the principle of joint financing,
6. Active participation in international structures (EU, Eurasian cooperation, CIS, Black Sea Cooperation countries, etc.) and development of foreign trade links in the agricultural sector,
7. Securing cooperation between civil society actors and management agencies of agricultural and rural land all levels of government.

## Chapter 3. Main directions of the strategy

### 3.1. Raising the efficiency of management and improving the normative-legal field

Increasing the efficiency of agricultural management in RA is a pressing issue. Over the past two decades, the sector's management system has undergone numerous changes which have not always been objective and justifiable. Currently agrarian policy is being developed and implemented by different state management bodies: MARA, (agriculture, forestry); RA Ministry of Territorial Administration (development of rural communities, irrigation system); RA Government Staff (expansion of rural capacity and marketing opportunities); The State Committee of the Real Estate Cadastre adjunct to the RA Government (protection of land resources and monitoring of effective usage); RA Ministry of Economy (development of agro-processing and logistics system); RA Ministry of Education and Science (research and development and training of specialised personnel); RA Central Bank (insurance and lending policy) and so on. This reduces the effectiveness of a comprehensive policy development, and realisation and accountability of agricultural management.

No legal act exists in the republic defining the state agrarian policy, its objectives and principles, directions and the state's responsibilities and obligations in the sector. It has become imperative to reinvent the role of the government in the agricultural sector, from passive reformer to an active participant responsible for the country's sustainable growth. It is essential to shape a comprehensive state support system for agriculture. The provision of different types of subsidies, grants and privileges must become the main aim and substance of the agrarian policy. In order to fill this gap it is necessary to approve the RA law "On agriculture" in which the following will be stipulated:

1. The state policy on agriculture and rural development, its aims, principles, directions and means of realisation;

2. The state policy on regulating the market of agricultural produce, raw materials and foodstuffs;
3. The principles, directions and mechanisms state support in the agricultural sector;
4. The procedure for approval and realization of the state program for agriculture and rural development;
5. The national report on the progress and results of the state project: The contents of the report and the presentation procedure;
6. The formation of information systems in the areas of agriculture and rural development.

### **Capacity building of the authorised body for agricultural management:**

The human, technical and informational resources of the agricultural ministry's staff and other sub-units are far from satisfactory. Conceptual and civil position employees have very low motivation. The competitive selection of civil servants, and their certification and training are not very effective. The technical, transport and communication means necessary for performing duties are also insufficient. In order to gradually fill these gaps, it is necessary to:

- Set certain professional standards for upper level management officials in the agricultural sector;
- Raise the salary grading rates of civil servants and based on the performance of their duties, increase correspondingly their salaries;
- Prepare a set of social security benefits for civil servants and their underage children that will compensate in part for the low salaries and function as an additional motivating factor.
- Establish an expense account covering technical, communication, transport and other business expenses of civil servants according to the performance of their duties, corresponding to administrative norms.

### **The state agriculture and rural development program**

The state agricultural and rural development program (hereafter, state program) must set for the medium term (tri-annually): the goals, issues and main directions for market regulation of agricultural development, produce, raw material and food; the main indicators of agricultural development based on forecasts, according to the measures to be implemented in separate years, anticipated results of qualitative and quantitative indicators and financial means required for the measures being realised. The state project must be drafted by the authorised body and must be presented for RA Government approval by July 1 of the year prior to the state project's first financial year. It is important to foresee that the financial sum provided for the quarter in the approved state project is not subject to reduction.

In order to guarantee the sustainability and continuity of the state project's financing, it is essential to stipulate a clause which will set the percentage of agricultural financing from the RA state budget in relation to the overall budget expenditure or agricultural gross product. Each year, before May 1, the authorised body must prepare and present for Government approval a **statement or national report** (hereafter, **national report**) on the **state project's implementation process and results** of the previous year. This will be discussed and approved within a period of one month. The approved national report will be presented to the National Assembly within 20 days and will be read at the subsequent session.

The **national report** includes the results of the complete and individual measures for the given phase of the national project; the actual results indices of the project's implementation compared to agricultural development forecasts and results indices as defined by the project;

the forecasts for agricultural development in the remaining period of the project; the proposed changes and additions in case of necessity; and other indices.

#### **Running the administrative register:**

Management efficiency is essentially linked to the receipt and command of accurate information concerning the sector. Currently the RANSS is compiling analytic statistics in the sector. In other words, data collection is being compiled not according to individual economic entities, but through summarising the results of community data and selective surveys. This approach is acceptable from the point of general statistics but is not enough for detailed analysis of the system, the development and realisation of a realistic policy, or the evaluation of targeted state support and its results.

Therefore, in the coming 1-2 years, it is necessary to create an agricultural administrative statistical register.

#### **Centre for strategic research:**

The efficient management of the RA agro-food complex requires the establishment of a **centre for strategic research**, which must analyse the results of agricultural policy and develop laws, regulations, and concepts. The centre would also develop innovation and investment projects relating to the sector, and be used as a tool for cooperation with international companies.

#### **Cooperation with civil society:**

Securing the involvement of civil society in the process of developing and realising agricultural policy is important and vital for increasing the efficiency of management. To that end, it is essential to introduce a mechanism for government to commission policy development by NGOs. In addition, the drafts for laws, decisions, strategic projects and concepts of fundamental importance to the development of the sector must be discussed with representatives of interested NGOs before being presented for RA government consideration.

#### **Specialised producers' unions:**

The formation of specialised producers' unions has become an imperative requirement for the protection of the interests of rural and farming households; the provision of expert and other forms of consultancy services; the volume of agricultural produce; the drafting of negotiations and agreements with the government relating to food prices and business revenues; and the effective organisation of the processes for information dissemination amongst farmers, officials, representatives of the economy, and the public. It is recommended that state support be shown for the creation and expansion of activities of the aforementioned unions, securing 30% membership of farming households in the medium term.

#### **Agricultural cooperation:**

Agricultural cooperatives can create the necessary conditions for production, sale of products at guaranteed prices, procurement of agricultural equipment, supply of fuel and fertilisers, reprocessing of agricultural produce, and efficient organisation of the process of introducing scientific and technical achievements. Cooperatives can significantly benefit the shaping and development of economic links between the agrarian sector and other sectors of the economy. In this sector, state policy must be targeted at the application of different methods of state support for the formation of agricultural cooperatives, in particular the allocation of different subsidies and grants to household farms through cooperatives within the framework of state support.



### 3.2. Price regulation of the agrarian market and agricultural products

Currently a free economic system regulated by the market has ostensibly been created in the agro-food sector of the republic, which includes around 340 thousand rural households. However the pricing process for the agricultural produce being sold is incomprehensible and how it is shaped by market mechanisms is very suspicious. On the one hand, the prices of individual agricultural products are high which is a result of their high cost-price, relatively higher demand than supply. Also, the prices are dictated by dominant entities in the market for the given product (to ensure super-profits). On the other hand, processing organisations frequently propose purchase prices to farmers that are at cost or less. This affects sales in other markets and farmers sell their produce to intermediaries (resellers) at considerably lower prices than that paid by the consumer. The absence of seller-buyer infrastructures for agricultural produce and the difficulties of exporting hinder the formation of an agricultural products sales market.

The most important condition for the development of agriculture is considered to be the securing of a level of income that will guarantee the realisation of expanded production from the sales of the goods produced.

The mechanism of price regulation plays an important role in the state agricultural support system. The modern approach to pricing of agricultural produce is considered to be active state involvement in the process of regulation of prices and the creation of a system with guaranteed purchasing prices for the most important agricultural produce.

#### **Guaranteed price:**

It is essential to set the guaranteed prices of the most important agricultural produce (grains, meat, milk), which can be adjusted during the year as the inflation rate changes. The registered costs of the most important agricultural produce produced in the country's favourable climatic conditions are taken as the basis for determining the target prices. For produce grown in unfavourable conditions, supplementary grants are allocated. During the year, the farmers are free to dispose of their produce. They can sell it at market prices, which may be higher, equal to, or lower than the guaranteed price. Should the selling price be lower than the guaranteed price, the farmers will be compensated for the difference.

In the case of a surplus in the market of the basic agricultural produce, the government will carry out an intervention purchase at the guaranteed price and manage the produce, its future storage, processing, sale, exchange, etc.

#### **Product interventions and intervention purchases:**

It is essential to create a comprehensive system of product interventions and intervention purchases, in order to prevent significant fluctuations of prices of important agricultural produce, raw material and foodstuffs, and in general with the objective of overall regulation of the foodstuffs market. Product interventions and intervention purchases can be realised in situations of significant price fluctuations in the foodstuffs market, particularly increases or decreases of 30%



The absence of seller-buyer infrastructures for agricultural produce and the difficulties of exporting hinder the formation of an agricultural sales market

in prices in a given period. During product interventions or intervention purchases, it is essential to apply additional restrictions on the export and import of the given produce.

### 3.3. State support for agriculture

This fundamental strategic direction requires the directing of the state agrarian policy towards the realisation of the following measures:

1. The expansion of RA government support for more long-term and effective business projects and strengthening of public-private cooperation with the objective of overcoming the consequences of the financial crisis.
2. The allocation of loan guarantees, grants and technical support for export-orientated companies which are competitive in foreign markets. Preferred directions include – the processing of fruit and vegetables; winemaking; organic agricultural products; dried fruits; dairy produce and some types of meat products; fresh fruit; the improvement and capacity strengthening of post-harvest technologies; the breeding and export of sheep and goats; the promotion of marketing and other projects.
3. The implementation of support projects that are aimed directly at rural agricultural businesses, the development of primary seed breeding and animal breeding, protection of plants and the implementation of veterinary anti-epidemiological measures, strengthening of food safety and infrastructural capacity, improvement in the productive and social infrastructures of rural communities, improvement in the fertility of rural soils, improvement in the ameliorative condition of land, irrigation in the natural meadows, provision of scientific, consultative and information, the preparation of specialised personnel.
4. The promotion of development of inter-industry cooperation and economic diversity in the agricultural sector (expansion of the Futures contracts system between agro-processing companies and companies producing agricultural raw-material, development of cooperation through the application of loans, competitive grants and other types of support).
5. The promotion of the gradual substitution of imported foodstuffs by local produce, particularly by the implementation of subsidising projects aimed at raising self-sufficiency in wheat, sugar, vegetable oil, and pulse crops, and pork and poultry.
6. The increase in affordability and improvement of the quality of services, based on public-private co-financing (postponed payments, subsidised interest on leasing, organisation of supply of agricultural equipment, breeding cattle, processing assembly lines and other means, by commodity loans).



A state agrarian policy should be directed towards the realisation of the promotion of gradual substitution of imported foodstuffs by local produce

7. An increase in subsidies on interest rates of loans, according to the land being cultivated and the expansion of production, aimed at the efficient use of land resources and raising the level of self-sufficiency in strategic foodstuffs.

8. The allocation of competitive grants for the realisation of targeted projects for the solution of gender issues and the broadening of opportunities for non-agricultural employment in rural areas (the development of small and medium enterprises, agro-tourism, crafts, souvenirs and cottage industries).

9. The realisation of projects supporting voluntary merging of similar types of land, particularly arable plots, for the purpose of effective use of land.
10. The realisation of projects for the rehabilitation of degraded soil, improvement and re-cultivation (restoration of damaged soil) within the framework of the UN Convention to Combat Desertification.
11. The realisation of measures for improvement in the investment environment for the purpose of protecting local producers and the domestic market, improvement in the tariff and non-tariff regulatory mechanisms and application of other economic tools (identification and elimination of irrational clauses in legal acts hindering the development of business, compliance of veterinary-sanitary, phyto-sanitary and quarantine regulations with, with international standards and WHO requirements).

### 3.4. Development of organisational forms of agriculture

As a result of agricultural restructuring, the basic organisational unit in the sector is the family household farm. These were regulated by “the Law on Peasant and Peasant Collective Households.” That law was considered void in 2006 and since then, the status of household farms is uncertain. The legal relationships of household plots, and horticultural enterprises are also not regulated by law and neither are those of agricultural cooperatives. Therefore the clarification of legislation relating to the organisational-legal units in agriculture is a priority. An important issue is also the development of a logistic system through institutional reforms in the agrarian sector. With this aim in mind, this strategy envisages:

- Support for the shaping of structures and a logistic system to promote the movement of agricultural produce from production to sale, including storage, processing, packaging; transportation and marketing capabilities; the organisation of agricultural markets in the large cities of the republic on holidays; and the creation of a wholesale market network;
- The expansion of a network of abattoirs complying with food safety requirements and the regulation of meat freezing, sorting, packaging and sales;
- Support for the establishment of milk collection points and consumer cooperatives; regulation of storage, sorting, packaging and sales of milk and dairy produce in compliance with food safety requirements;
- Regulation of sales by intermediaries of agricultural produce, particularly fresh fruit and vegetables; the creation of wholesale collection centres supplying retail trade outlets through the development of cooperation and the expansion of their capabilities, in particular support for re-equipment of their storage, sorting, packaging and transportation resources.

### 3.5. Ensuring food security

The food security of a country is considered ensured when the country’s economic condition is such that it guarantees the active and healthy life of the population with affordable, quality food that conforms to physiological norms of quantity and variety and, in emergency situations, precludes food crises. According to the RA national food balance average data for 2008–2010, the self-sufficiency level of staple foodstuffs is low. It constitutes: wheat 38.7%, pulse crops 56.2%, vegetable oil 4.3%, sugar 9/7%, pork 52.5%, and chicken meat 21.2%. Strategically ensuring RA food security requires:

1. Raising the level of accessibility and affordability of foodstuffs according to the requirements of the RA law “On Ensuring Food Safety” (2002), “RA National Safety Strategy” (2007), RA Sustainable Development Program (2008), and the RA Food Security Concept Policy (2011).

2. Securing daily food consumption for the population of a minimum of 2420 KC energy value per head of staple foods. In order to secure the minimum 75-80% for self-sufficiency of staple foods (wheat, potatoes, vegetables, vegetable and animal oil, sugar, milk, meat, eggs, and salt), and the creation of a state reserve of 15-20% of the annual demand. This important challenge requires the reintroduction of arable lands, which are being used for other purposes and also those which have been not used for years, into economic circulation without infringing on their owners' property rights or causing losses, and realising the following emergency measures by supplementing the RA Land legislation with the following Articles:
  - a) Reserve the right to the council to lease out arable land which has not been used for its target purpose for at least the past 3 years and whose owner has not conscientiously paid his taxes and has not put it up for rent, for a rent which does not exceed the land tax for no less than 5 years and offer it to those legal and physical entities who express interest in cultivating it,
  - b) The lease period is extended by a further 5 years should the owner of the land not take the responsibility for economic activity himself at the end of the lease period.
3. Considering raising of the level of self-sufficiency in staple foodstuffs as the main priority in the development of the sector and realising the following measures through a **state program**:
  - a) The provision of first and second reproduction seeds for at least 60% of land sown with cereal crops, within the framework of the cooperation programs between the public and private sector and mostly through the development of local seed production, and the implementation of measures for protecting and fertilising plants, and combating pests,
  - b) The introduction of crops which provide high added value, are acclimatised to the natural-climatic conditions in the Republic and for which there is a market demand,
  - c) Ensuring the continuity of the importation of high productive breeds of farm animals and the improvement of the characteristics of local breeds through selective breeding,
4. Setting the minimum wage and pension at no less than the minimum food basket in order to raise the affordability of foodstuffs.

### 3.6. Ensuring food safety

Based on the principle of "from field to fork," securing safety in the food chain for the consumer requires:

1. The completion of the food safety legislative field and, based on the relevant EU directives, the self-regulation and provision of inspection control for the production, processing, packaging, branding, transportation, storage and sales chain,
2. Support for the activities of consumers' rights and food quality and safety NGOs,
3. Securing cooperation and procedural harmony with international and regional organisations involved in securing food safety,
4. Increasing the activity of the national "Codex Alimentarius" committee and compliance of national standards to international criteria,
5. Support for the introduction of the relevant sanitary and phyto-sanitary measures in the Hazard analysis and critical control points (HACCP) system, within the framework of the EU Eastern Partnership and related to the application of the requirements of the WHO agreement on sanitary and phyto-sanitary measures and the European Neighbourhood Policy, Action Plan (ENP) 2009-2011,
6. Strengthening of capacity, of food testing laboratories by technical re-equipment, and the education and retraining of staff.

### 3.7. Land conservation and development of the irrigation system

Armenia is considered a land-scarce country. Thus within the framework of this strategy state support is planned for land conservation and development of the irrigation system, in the following directions:

1. Improvement of the management structure and technical condition of the irrigation system,
2. Replacement of mechanical irrigation by gravity fed irrigation, application of clear legal-organisational mechanisms for the management, issuance and accounting of water,
3. Increase in irrigated areas of land through the construction and exploitation of new water facilities (particularly small dams),
4. Promote the establishment and subsequent development of water companies and also water company unions,
5. Support for the renovation of irrigation within farms,
6. The cleaning and repair of the meshes on collector-drains with the aim of regulating the water level below the surface and mineralisation of the areas of irrigated land with network field drains,
7. Secure a reliable water supply, a reduction in water losses and exploitation costs and the introduction of a system of subsidies aimed directly at water consumers, through the improvement in the technical condition of the irrigation system,
8. Realisation of the projects for improvement and irrigation of natural pastures,
9. The correct selection of crops for areas of irrigated lands requiring a lot of water and the application of efficient irrigation technologies for their cultivation.

### 3.8. The development of organic agriculture

For the development of organic agriculture in the republic, within the framework of this strategy, it is planned to:

1. Draft and approve compliance assessments, organic product marking and labelling and other regulations securing the application of the RA law “On organic agriculture”,
2. Support the formation of private sector compliance certifying (assessing) bodies,
3. State support for agro-tourism development projects using organic agriculture and recreation resources in rural areas, historic-cultural monuments and natural sites.

### 3.9. The technical re-equipment of agriculture and efficient use of machinery

The current condition of technical provisions in agriculture, particularly the current severe degree of wear and tear of machinery and the absolutely unsatisfactory renewal rate allows us to forecast that at the end of the upcoming decade, 55-60% of arable land will not be intensively cultivated. Therefore within the framework of this strategy, the most important task for agricultural development is technical re-equipment and efficient use of machinery. In order to resolve this issue, it is necessary to:

- Annually import 1100 tractors, 40 cereal harvesters, 60 combine harvesters and sufficient quantities of accessories for assembly onto the tractors. The importation of this quantity of machinery requires 10 billion Drams annually (200 billion drams worth of produce is not produced annually due to around 165 thousand hectares of arable land not being used),
- Allocate the imported machinery to rural communities, consumer cooperatives and agricultural business enterprises through the application of accepted alternatives of public-private sector partnership development (leasing or instalment payments, renting, cooperation and so on),

- Show state support for training and re-training of mechanical and agricultural machinery repair specialists and the development of mobile technical assistance services,
- The introduction of the minimum and zero (no-till) cultivation technology for land, and assistance in acquiring the corresponding equipment for it,
- Subsidize the cost of fuel for combines working on a seasonal timetable, taking into account differences in harvesting times for cereal and fodder crops in the latitudinal zones of the republic.

### 3.10. Improvements in agricultural lending

One of the peculiarities of agricultural produce is that there is a severe seasonal difference in the time period between when the production costs are paid and when the financial revenues are received. This creates the necessity for short-term loans. Apart from that, production expansion and full technical equipment and upgrading through investment projects require long-term loans. Currently the limited and expensive credit resources seriously hinder agricultural development. The solution of this issue requires:

- The drafting and implementation of a “Development of Credit cooperation” program,
- State support for the implementation of targeted credit and venture projects,
- Improvements in the mechanisms for collaterals and the provision of state guarantees,
- The approval and realisation of the differentiated project on subsidies for loan interest rates according to regions.

### 3.11 Improvement in the educational and advisory systems in agriculture

The most important way to confront the challenges of the millennium is development of a **knowledge-based economy**. This issue is even more emphasised in the agricultural sector because the production resources for the increase of food production are extremely limited and the population's growth rate cannot be halted. Currently, the RA agricultural educational and advisory system is on the verge of breaking down. In essence, as a result of optimisation taking place under the pretext of structural changes, the veterinary and plant protection scientific structures have disappeared. Three of the remaining five scientific centres have been in the process of being united with the Armenian State Agrarian University (ASAU) for over a year now but their status has not yet been approved. The same fate awaits the agricultural colleges in the marzes, of which two (Spitak and Armavir) have already been optimised and the rest will be removed from the RA Ministry of Agriculture's system during 2012. The agricultural advisory structures in the 10 marzes of the republic, the Marz Agricultural Support Centres (MASC) and the Republican Agricultural Support Centre (RASC) have serious issues of capacity building. In general, the present condition of the agricultural educational and advisory system is not encouraging and in order to modernise it, according to this strategy, it is proposed:

- Modernise the state order system for training of personnel in the agrarian sector, to stipulate not only criteria for admission and education for students studying by state order, but also certain requirements for post-university activities (at least three years of professional work in regions requiring personnel),
- Create “Agrogitutyun” research and production holding open joint stock company (RPH OJSC) by uniting scientific centres of the RA Ministry of Agriculture, scientific establishments with an emphasis on agriculture of the RA Ministry of Education (state shares), and companies in the private sector (interested in purchase of shares or implementation of investment projects). The OSJC must carry out the functions of scientific support for the agrarian sector, training of scientific personnel, development of knowledge-intensive production (select seed breeding,

biotechnology, production of vaccines, farm animal selection and protection of health, drafting and introduction of innovation and venture projects, localisation of international scientific achievements and so on),

- Create an agro-scientific intellectual bank with the aim of using the scientific potential of the sector efficiently and, based on previously defined criteria, rate scientists according to a points system or annual performance certification. Experts who have reached a certain level will be given honoraria and be permitted to participate in the competitions for agrarian scientific and advisory project grants. In order to achieve this, propose relevant legislative changes and present the draft of the decision “On the Agro-scientific intellectual bank and certification of scientists” to the government,
- Consistently implement a program of agrarian science, education and advisory integration, reserving the function of drafting and realisation of the program to the ASUA,
- Shape an effective system for raising the efficiency of the advisory system and the identification and satisfaction of the primary needs of farmers through technical re-equipment and capacity building of the RASC and MASC,
- The realisation of institutional reforms in the scientific, educational and advisory structures at a regional level.



To modernise the agricultural educational and advisory system institutional reforms in the scientific, educational and advisory structures at a regional level have to be realised

### 3.12. Improvement in the use of labour resources

According to NSS RA data, in 2010, 44.9% (496.1 thousand individuals) of the total employed in the Republic, work in household farms. Three years ago this number constituted 502.5 thousand individuals, or 45.6%. In calculating these numbers, the statistics mechanically considered the able-bodied members of the families who have taken advantage of privatization to be employed. As a result, it appears that of the total 36% rural population, 47.5% are employed while that index is 30% in the cities. According to another calculation, it appears that of the 81% economically active population of the republic, 72.2% are urban and 94% are rural. As long as the NSS presents such statistics to the government, a policy for efficient use of rural labour resources will not be realised as, ostensibly, no such issue exists. This means that the issue of non-agricultural employment in villages will not be apparent for a long time. The resolution of the issues of uniting agricultural lands, increasing the size of farms, increasing the income of the rural population, introducing a decent social security system, overcoming poverty, and reducing the high level (over 46%) of hidden unemployment, is mainly conditioned by the resolution of that former issue. This strategy stresses those issues and proposes that the following be included in the priorities of the state economic policy:

- Improvement in the investment environment for the development of small and medium enterprises in rural communities, particularly stipulating tax privileges and subsidizing loan interest rates and realising venture projects,
- The implementation of developmental projects for production and social infrastructures in small towns aimed at the development of step migration (swing migration),
- The forming of clusters in rural communities and, according to their peculiarities, the drafting and realisation of local social-economic development projects.

### 3.13. Development of economic links in the agrarian sector

The development of foreign economic links in the agrarian sector, in spite of certain peculiarities, is on the whole conditioned by the foreign policy of the country. In particular, within the framework of membership of the WHO, Armenia benefits from the status of most favoured nation, and also has trade agreements with Georgia and the NIS states, except Azerbaijan and Uzbekistan. Currently the signature of the deep and comprehensive free trade agreement between Armenian and the EU is considered extremely important. The existence of the agreement will secure free entry of Armenian foods into the EU market. Armenia also uses the EU (GSP+) "Generalised System of Preferences" which allows it to export around 7000 domestic products to the EU with zero or reduced taxation. The provision of competitive infrastructures is considered important from the viewpoint of foreign economic activity. The modernisation of infrastructures is realised by programs in the respective sectors. In particular, the most important transport infrastructural projects are the North–South highway, the Iran–Armenia railroad, and the International Logistic Centre and Free Economic Zone in the area adjacent to Zvartnots international airport. Despite this, and highlighting the importance of continuity of the reforms, this strategy foresees:

- Increase the numbers using the "Generalised System of Preferences" by providing training and information to entrepreneurs,
- Diversify the types of food products being exported,
- Reduce tax bureaucracy and accounting procedures
- Improve in service to tax payers, widespread application of risk criteria for inspections,
- Simplify, reduce and automate export and import procedures, and improve quality of services to businessmen,
- Provision of accessible loans and centralised information on loans,
- Effective enforcement of the protection of intellectual property, and support for protection of intellectual property in the export markets for Armenian exporters,
- Provision of advantageous foreign trade regimes and elimination of trade barriers.

## Chapter 4. Development of rural areas

Agriculture and the development of rural areas is an interdependent system. As a rule, the level of intensive agriculture is higher in developed rural areas. In its turn, highly productive agriculture benefits the development of rural areas. From this point of view, the development of those rural infrastructures which are directly affected by agricultural development and which promote the development of that industry are included in this strategy. This refers particularly to the power system, road network, transportation, communications and water supply. The strategic developmental directions of the fields referred to are:

1. Fuel and energy system
  - a) The gasification of and, should suitable conditions exist, the operation of, small, higher capacity hydropower stations, while maintaining safety requirements and environmental norms, through the involvement of financial means from public–private sector cooperation and other sources.
  - b) The efficient use of biogas, geo–thermal, solar and other sources of renewable energy resources which have not only domestic but industrial significance in the development of rural areas.
2. The water supply



- a) Improvements in the quality of water supplied, reduction in water losses and, in the long term, the provision of a 24-hour drinking water supply.
  - b) The creation and management of the necessary quantities of water reserves, the safe exploitation of the water supply system, the renovation of daily regulatory water basins and the construction of new basins.
  - c) Continuation in building of sewage systems in rural communities and installation of biological treatment plants, avoiding the spread of infectious diseases as much as possible.
3. The field of automobile transport
- a) Raise the accessibility of transport particularly in distant (remote) mountainous and border communities,
  - b) Improve the activities of the marketing structures, secure competitive selection of shipping, and improve licensing and certification systems with the aim of ensuring the complete establishment of a transport services market,
  - c) Continue the reforms being implemented in the transport sector aimed at raising business activity in rural areas and the development of the labour market through step (swing) migration.
4. The field of road construction
- a) Continually realise the renovation works of roads serving rural communities (in particular in border and mountainous villages) from the RA state budget and other sources, and ensuring their proper accessibility, through the RA budget and other financing sources,
  - b) The provision of at least one renovated road connecting to interstate roads in almost all communities, in the medium term perspective.
5. Communications, news and information field
- a) The modernisation of the communication system in rural communities, increasing the accessibility of means of communication, gradual digitalisation of the system and increasing the accessibility and affordability of the internet,
  - b) The creation, maintenance and development of reserve and alternative infrastructures and mobile means of communication,
  - c) Expansion of the communication system in all marzes of the Republic through the development of land, radio relay, and alternative means of communication,
  - d) Reliable protection of the communication system against external interference,
  - e) The gradual provision of accessibility and full coverage of modern communication means (internet, mobile and so on), including in remote rural areas, and the provision of healthy competition in the services market of that sector,
  - f) The introduction of relationships typical of a market economy in the spheres of tele-communications and the postal service.

### Social infrastructure

The development of the social infrastructures of the village is significant from the point of view of raising the standard of living of the rural population and the efficiency of agriculture. In the transition period of the shaping of market relations perhaps the necessity of direct state support for those infrastructures will be retained. Later on, the participation of the local self-government bodies and the private sector in the development and management of social infrastructures will gradually increase. Within the framework of this strategy, the following social directions of the village are highlighted:

- The construction and renovation of education-cultural and marz facilities,
- Technical support for drafting and implementation of agro-tourism development projects,

- The development of small and medium cultural service providing enterprises, with the objective of creating non-agricultural employment,
- The realisation of projects targeted at raising the activity of rural women in business.
- State support for the development of rural folklore and handicraft.
- The realisation of measures aimed at overcoming rural poverty within the framework of the sustainable development project.

## Chapter 5. Development of public-private sector cooperation

The realisation of this strategy is anchored in active public-private sector cooperation. It is planned that the state will carry out the following functions in the regulation of agriculture:

- Support for the development of large engineering (melioration, irrigation, drainage system, anti-flooding measures, road construction, etc.) and rural social infrastructures,
  - Creation of legislative bases and securing of free competition,
  - Monitoring and preservation of agricultural lands,
  - Development of primary seed and animal breeding,
  - Prevention of epidemic and quarantine diseases of plants and animals,
  - Improvement in the activity of the provision of food safety system,
  - Providing scientific and technical, information and advisory services support,
  - Support for the drafting and implementation of rural proportional development projects,
  - Development of international cooperation and expansion of marketing opportunities,
  - Ensuring the freedom of the activities of NGOs defending the rights and interests of villagers,
- For the realisation of this strategy, the following is required of the private sector:

- The targeted and efficient use of land, machinery, buildings and other means of production which have been acquired as property as a consequence of agrarian reforms and the privatization of land,
- Respect for bio-diversity and environmental requirements and compliance with agrarian and food safety regulations,
- Active participation in community development projects on a co-financing basis,
- Support for the development of agricultural cooperation and active participation of infrastructures and the defence of the rights and interests of villagers, together with civil society representatives,
- Active participation as full members in the management of Water Users Associations (WUA), and discussion of monitoring results,
- Willingness to take advantage of agricultural advisory and information projects, trainings and field demonstrations,
- Participation in annual exhibitions, harvest festivals and fairs.

## Chapter 6. Anticipated results and criteria of assessment

In the case of the implementation of the program measures foreseen within the framework of the main objectives of this strategy, the following main results are anticipated in 2022:

1. Mean annual growth in agriculture of 4.5%
2. A reduction in the number employed in agriculture (it will be 420 thousand in 2022, compared to 493 thousand at present). The increase in gross production will be as a result of increased labour productivity.

3. The level of commoditization of agriculture will reach 75%. This will make significantly increase cash flows and reproduction capacities in household farms.
4. There will be around 421.0 thousand hectares of land for sowing in 2022 which will be 42% greater than the 296 thousand hectares average of 2008–2010. The areas under fodder crops in the same period will reach 155.0 thousand hectares, while 86.2 thousand hectares will be perennial plantations.
5. There will be positive shifts in the inter-sectorial structures of plant and animal breeding. There will be an increase in the gross production of fruit, potatoes, vegetables, fodder and technical crops. The specific weight of sheep rearing and poultry farming products in animal breeding will significantly increase.
6. At the end of the forecasted period, as a result of the zoning of high yield varieties and modernisation of cultivating technologies, the yield of cereal crops, potatoes, and vegetables, will increase by 44.6%, 34.8% and 34.2% respectively and the yield of fruit and grapes by 36.7% and 12.5% respectively, compared to 2008–2010.
7. As a result of the development of cattle breeding, and improvements in feeding and rearing conditions, milk yield per cow will reach 2480 kilograms by 2022.
8. The export of food and agricultural raw materials will increase three-fold.
9. The level of food safety for the population of the republic will increase, the security of staple foodstuffs will significantly increase as a result of local production, and the incomes of those engaged in agricultural businesses will increase.

## Chapter 7. The management and monitoring of the strategy

The management of the strategy will be realised by the RA Ministry of Agriculture, other interested ministries and departments, and regional management and local self-government bodies, through the following mechanisms:

10. The measures securing the provisions of the strategy and their implementation will become benchmarks for the medium term expenditures program, for presenting the annual budgetary financing applications and for the realisation of other targeted projects in the agriculture sector,
11. The provisions of this strategy can be applied by the government of Armenia to the amending of the “2010–2020 RA program for rural and agricultural sustainable development “and the review of the timetable of measures ensuring its implementation,
12. The monitoring of the measures for ensuring the implementation of the strategy is to be conducted by the RA Ministry of Agriculture and NGOs in the sector, in the following format:
  - A. The following relevant data published by the NSS RA will serve as a basis for conducting monitoring:
    - a) The value of the agricultural gross product, according to plant breeding and animal rearing branches,
    - b) The sowing areas for agricultural crops and their structure,
    - c) The areas and structure of perennial plantations,
    - d) The headcount of livestock, according to their type,
    - e) The volumes of production of the main food crops,
    - f) The yield of basic agricultural crops,
    - g) Production volumes of basic animal rearing produce,
    - h) Productivity of livestock
    - i) Average numbers employed in agriculture,

- j) The gross product (productivity) calculated for each person employed in agriculture,
  - k) The level of commoditization of agricultural products,
  - l) The specific weight of irrigable lands compared to sowing areas and perennial plantations,
  - m) The existence of basic agricultural machinery,
  - n) The level of repair of agricultural machinery,
  - o) The level of self-sufficiency of staple foodstuffs,
  - p) The structure of the consumption of foodstuffs included in the food balance sheet of the RA (assessed according to their energy value),
  - q) The prices of agricultural products (retail and as proposed by rural households),
- B. Monitoring of the strategy will also be realised by state inspectorates and other sub-divisions operating within the ministry, within the framework of the jurisdictions defined by the Ministry's Statutes.

### List of abbreviations

<b>VAT</b>	Value added tax
<b>WTO</b>	World Trade Organisation
<b>NSS</b>	National Statistical Service
<b>ASMC</b>	Agricultural Support Marz Centre
<b>RASF</b>	Rural and Agricultural Support Fund
<b>IFAD</b>	International Fund for Agricultural Development
<b>RESCADP</b>	Rural Enterprise and Small-Scale Commercial Agriculture Development Project for Armenia
<b>RASDS</b>	Rural and Agricultural Sustainable Development Strategy for 2010-2020
<b>WB</b>	World Bank
<b>MARA</b>	Ministry of Agriculture of the Republic of Armenia
<b>NGO</b>	Non-governmental Organisation
<b>EU</b>	European Union
<b>CAP</b>	Common Agricultural Policy (of the EU)
<b>MTEP</b>	Medium-Term Expenditure Program (RA state budget)
<b>UNDP</b>	United Nations Development Program
<b>FAO</b>	Food and Agriculture Organisation (UN)
<b>NCSO</b>	Non-Commercial State Organisation
<b>LSGB</b>	Local Self-Government Body

*mining*

# The Main Issues of the Development of the Mining Industry in Armenia

## Introduction

The basic issues relating to the mining sector have been studied and analysed within the larger framework of social security reforms of Armenia. The results have been summarised in the following report and are classified into three thematic sections: (1) the economic potential and basic issues of the development of mining; (2) the basic issues and prospects for the development of processing non-metallic ores and; (3) the legal regulation of mining.

The volumes of production, investment, export, taxes paid into the state budget, size of profit, employment and salaries in the Armenian mining sector in recent years is presented in the section, “The economic potential and basic issues of the development of mining,” as well as analyses of international and export prices of the most important raw materials. Based on comparisons made with other countries, each subsection and conclusions in the final subsection raises the main directions of the state’s policies, principles, and necessary measures for the resolution of current issues. The successful realisation of these recommendations will benefit the future development of the mining sector in Armenia.

The second section, “Basic issues and prospects for development of processing non-metal ores,” gives an assessment of the economic potential of non-metal mineral resources, strategic significance for innovation, cluster-creation, regional proportional development and its role in public-private cooperation and Armenia’s industrial development. The possible markets and prospects for the export of products obtained as a result of non-metal mineral processing are outlined.

In the section, “The legal regulation of mining,” international best practices of principles and procedures of the use of extracted minerals, environmental protection, guarantee of technical safety, and protection of the rights and legal interests of parties are considered. Conclusions pertaining to and applicable to Armenia are drawn up based on these practices. Suggestions are presented including international cooperation, internal legislative and institutional reforms, and approaches to negotiation.

# Chapter 1. The economic potential and fundamental issues of the development of mining

## 1.1 Introduction

International economic and political trends in 2010 have transformed the mining sector throughout the world. Mining has entered a new era. Developing countries are predicting growth of long-term demand, whereas supply remains limited due to a decreasing degree of extraction of minerals, and mines being found in more distant terrain. The cost curve has risen and continues to put pressure on the sector, forcing it to maintain financial discipline. New players have appeared in the sector and it is gradually receiving greater attention from a diverse group of participants. The situation has changed significantly in the mining industry.

Despite certain improvements since 2010, mining companies throughout the world continue to withstand basic challenges in order to secure stable growth. In particular, improvements in their activities and cutting costs have become the fundamental challenges within the sector.

The increase in nationalisation of resources is a fundamental concern for international mining companies. According to the European Bank for Reconstruction and Development (EBRD), the participation of the private sector in mining has gone further than in the oil industry. Nevertheless, in many countries there still exists significant residual state ownership and influence, particularly in less successful transitional economies. Taking into account the unstable environment of international prices, the involvement of experienced and financially stable strategic investors remains a significant challenge in this sector.

Taxes have become a serious issue for the management of enterprises. Mining companies also have a deficit of experienced workers, which is particularly obvious in companies that are still developing.

## 1.2 Production

Significant growth has been registered in the mining sector in Armenia over the past ten years. Value added in 2000 was only 15 million USD, while in 2010 it was more than 235 million USD (diagram 1). Considering the preliminary statistics of the RA National Statistical Service (NSS) for the first nine months of 2011, it is assumed that the value added in the mining sector in 2011 may exceed 300 million USD.

At the same time the mining sector has a modest weight in the GDP. Throughout the entire period, its maximum influence on the GDP has been 3.6 %.

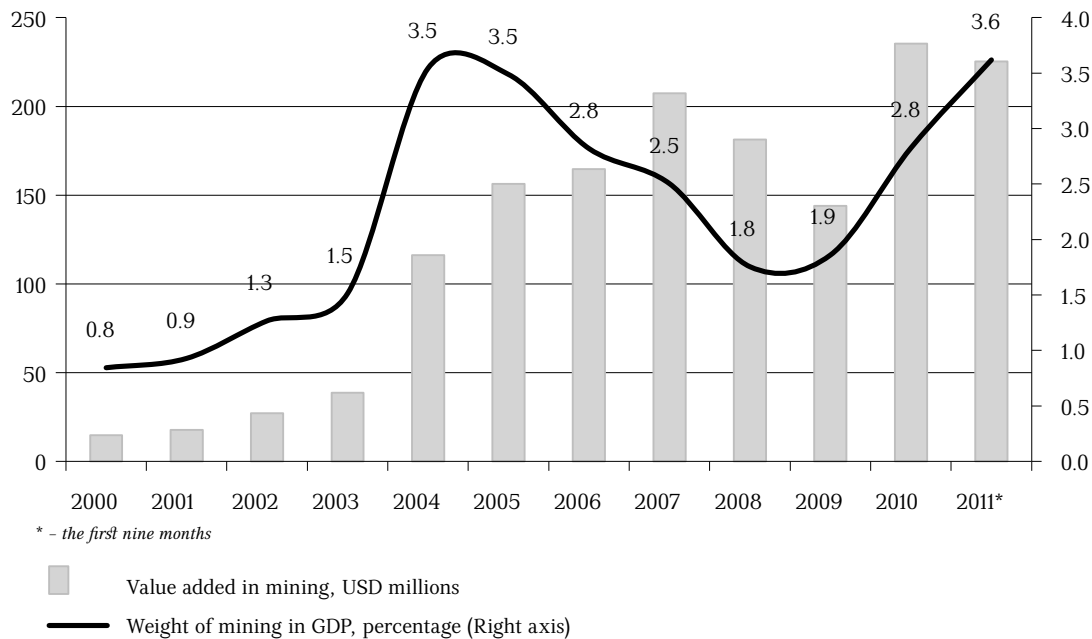
The economic gains from the mining sector can be separated into the following three groups:

- In the form of simple profit for the sector's enterprises
- Taxes paid to the state
- In the form of salaries paid to the workers

At present the mining sector is considered one of the most profitable sectors in the world. According to *IBISWorld* financial consultancy company data, in 2011, five of the 10 most profitable sectors in the USA were linked to mining. The highest profit margin in mining in the USA was secured by the production of copper, nickel and zinc: 52.1%; oil and gas: 48%; iron ore: 46.4%; molybdenum: 42% and gold and silver: 39.1%.



Diagram 1. Mining in Armenia 2000–2011.



Source: NSS

As it appears in diagram 2, the most advantageous years for the sector in Armenia, in terms of profitability, were 2005 and 2006 when the enterprises in the sector had net profitability<sup>1</sup> indices of 32% and 30% respectively. In those years, with regards to the net profitability index, Armenian enterprises fell behind the 40 leading companies of the world. In 2003 and 2009 there was no profitability in the sector whatsoever. According to statistical studies, between the years 2002–2009, the average net profitability in the mining sector of Armenia was 8%. This was less than the 17% net profitability index registered in 40 leading companies.

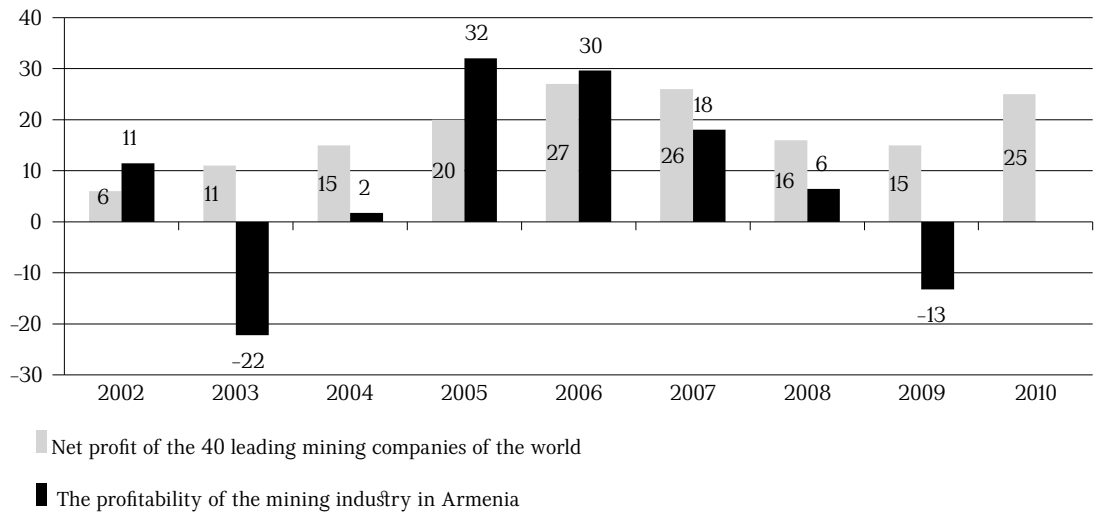
The global economic crisis and the resulting sharp drop in international prices of metals in 2008–2009, had a negative effect on the growth rate of sector development and the level of profitability.

In recent years a low level of profitability has been registered, and gold mining enterprises in particular have been working at a loss. The main reasons have been the low index of metal extraction and high transportation costs.

According to the results of the 2008–2009 fiscal years, mining has also headed Australia's well-known list of most profitable industries with a mean profitability margin of 37.1%

<sup>1</sup> The net profitability is calculated as the relationship between profit tax minus costs resulting in net profit, net income and foods, products, services. This has been calculated by the NSS for organisations included by the sampling method and then extended to cover the whole sector.

Diagram 2. Profitability level of the mining sector, 2002-2011



Source: NSS "Financial Statistics for Armenia" PricewaterhouseCoopers (PwC)

However, in 2010-2011 there was an upsurge in mining once again. The rise in international market prices for metals and the restoration of external demand contributed to this development.

In 2010, the dependence between production of copper (percentage of the total reserves) and the copper reserves in Armenia as well as the main copper producing countries of the world is pictured in diagram 3. Copper resources in Armenia are around 6.4 million tons or 0.9% of global reserves. According to 2010 statistics Armenia has produced 0.5% of its stock. In comparison, according to 2010 data, the three countries of the world, where more than half of the total global reserves are concentrated are: Chile -27.7%, Peru -13.1% and Australia -12.5%. These countries have produced 2.9%, 1.4% and 1% of their stocks, respectively.

Diagram 3. Dependency in different countries between the production of copper (percentage of total reserves) and copper reserves, 2010

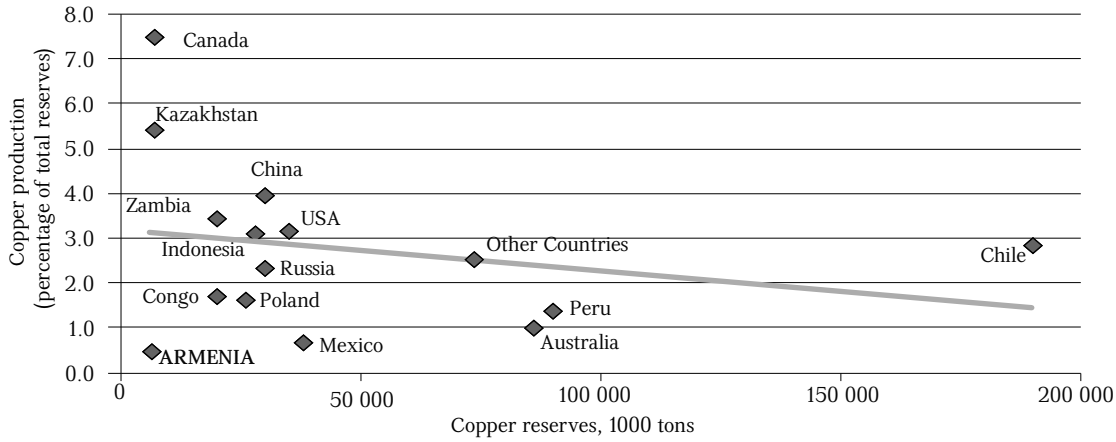


Diagram 4. Dependency in different countries between the production of molybdenum (percentage of total reserves) and molybdenum reserves, 2010

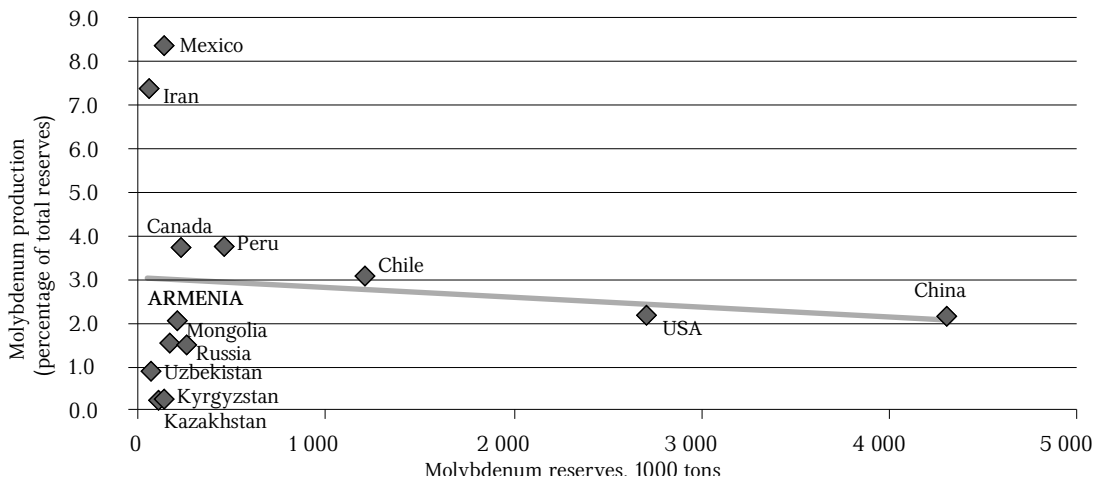
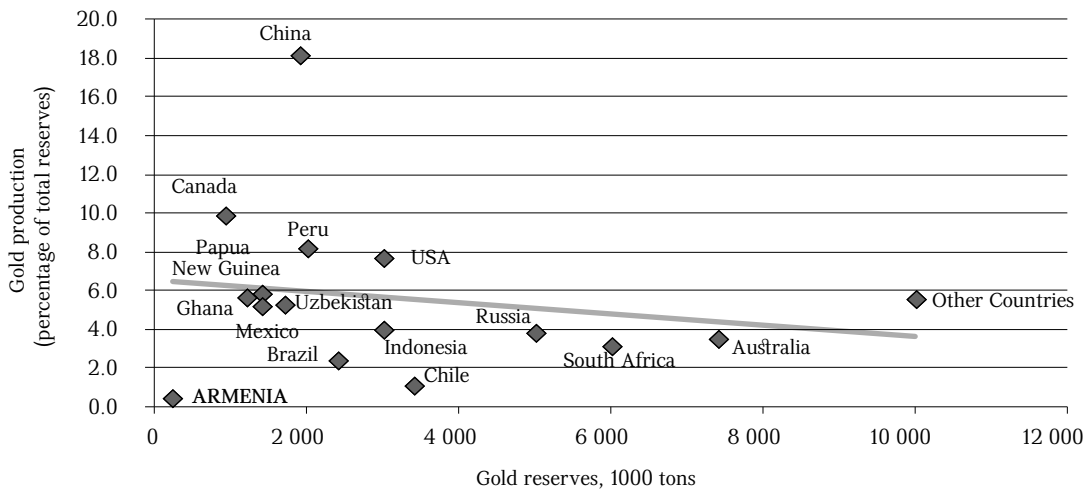


Diagram 5. Dependency in different countries between the production of gold (percentage of total reserves) and gold reserves, 2010



Source: US geological study, Wikipedia



A similar situation exists in the dependence between existing stocks and production of gold. In 2010 almost 0.5% of total reserves in Armenia have been produced (diagram 5). The annual production of molybdenum in relation to reserves is even higher and in 2010 it constituted 2.5% (diagram 4). In general, the annual quantities extracted of Armenia's three most important minerals, expressed in percentages of existing stocks, are low compared to the main mining countries of the world. However, it is important to note that exploratory work for new reserves in developed countries are conducted on a much larger scale, allowing for periodical increases in reserves of those countries. While in Armenia, because of its relatively small territory, even with widespread geological exploration it is not possible to increase existing reserves. Therefore, the productive and efficient use of existing reserves is one of the main priorities in the sector.

### 1.3 International prices

During 2000–2011 the international price of copper had risen around five times from 1,813 USD per metric ton in 2000 to 8,828 USD in 2011, whereas the international production of copper had only grown by 22% (diagram 7). In Armenia the production of copper concentrate in that period (in comparison with the changes in international production volumes) had increased significantly by 2.75 times (diagram 6).

In 2011, the international price of molybdenum increased four times from 2002 and global production volumes doubled (diagram 9). In Armenia, the production of molybdenum has grown by 60% (diagram 8).

The international price of gold in 2011 increased 5.6 times compared to 2000, while global production has grown by only 5% (diagram 11). In Armenia, although the production of gold has increased by 15% in 2010 as compared to 2000, that index constitutes only 30% of the maximum level registered in 2002 (diagram 10).

*Diagram 6. International price of copper and copper production in Armenia*

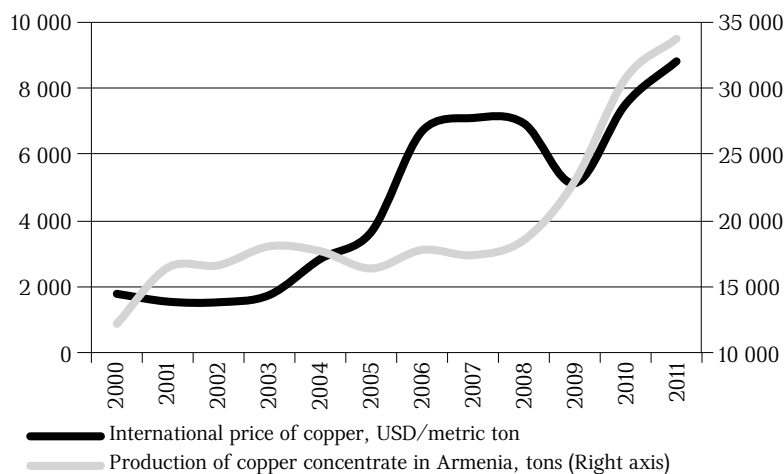
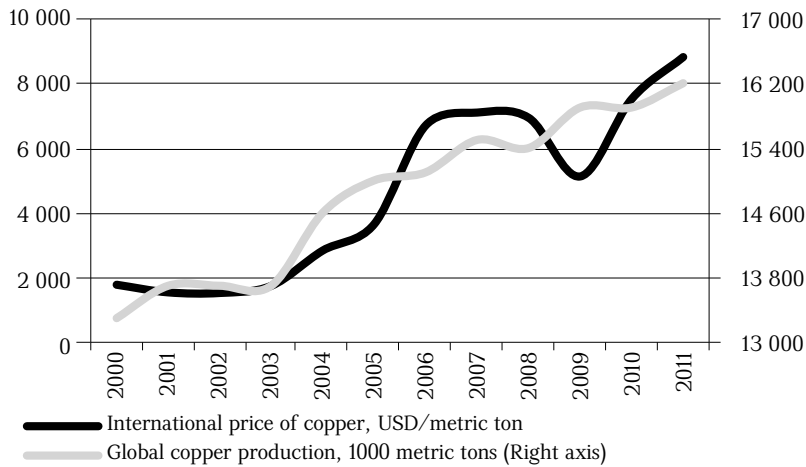


Diagram 7. International price of copper and global copper production 2000-2011



Source: World Bank, Great Britain, US geological investigations

Diagram 8. International price of molybdenum and molybdenum production in Armenia 2002-2011

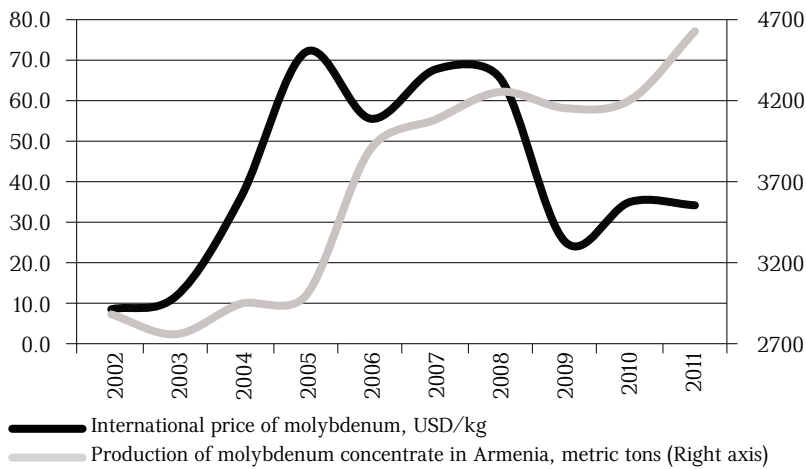
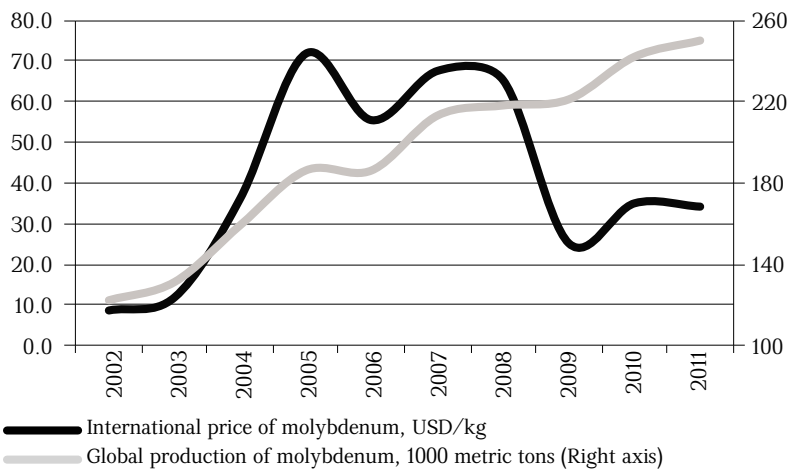


Diagram 9. International price of molybdenum and global production 2002-2011.



Source: Mineral.ru, US geological research

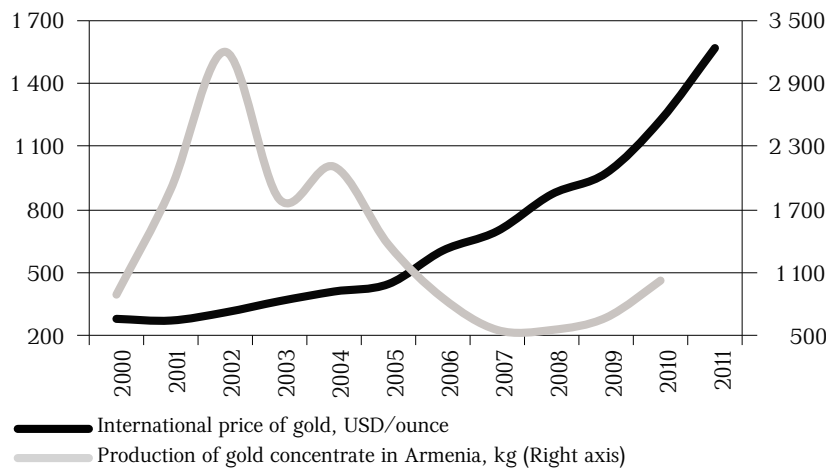
It is peculiar that if the present prices of copper and gold are at their highest level, and the price of molybdenum reached its highest level in 2005, then the prices recorded for molybdenum in 2011 constitute only 50% of those highest prices.

At present, taking into account the high prices and company interest to explore more distant and deeper mines, the expenditure on research and development (R&D) for mineral exploitation has increased globally.

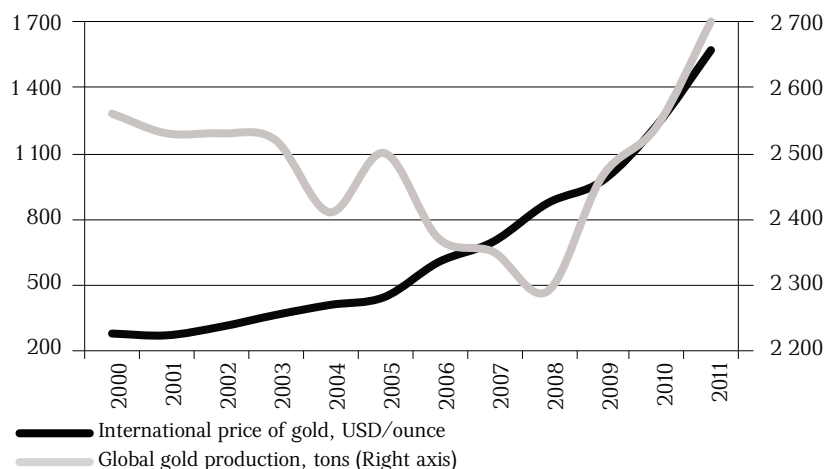
How will the prices of international mining products develop? Will the current high levels be maintained, or tumble down? Whether there will be profitable ongoing mining projects in Armenia depends a great deal on the answer to these questions. Unfortunately, there are no irrefutable answers.

On the one hand it is indisputable that the developing markets are moving towards industrialization. The demands of China, India and even African countries are growing at a mind-boggling pace and the long-term predictions seem to indicate that there is an increasingly growing demand. China's demand for copper and aluminium are 37% and 44% of global demand, respectively. These exceed the total consumption levels of the USA, Western Europe and Japan.

*Diagram 10. International price of gold and gold production in Armenia 2000–2011*



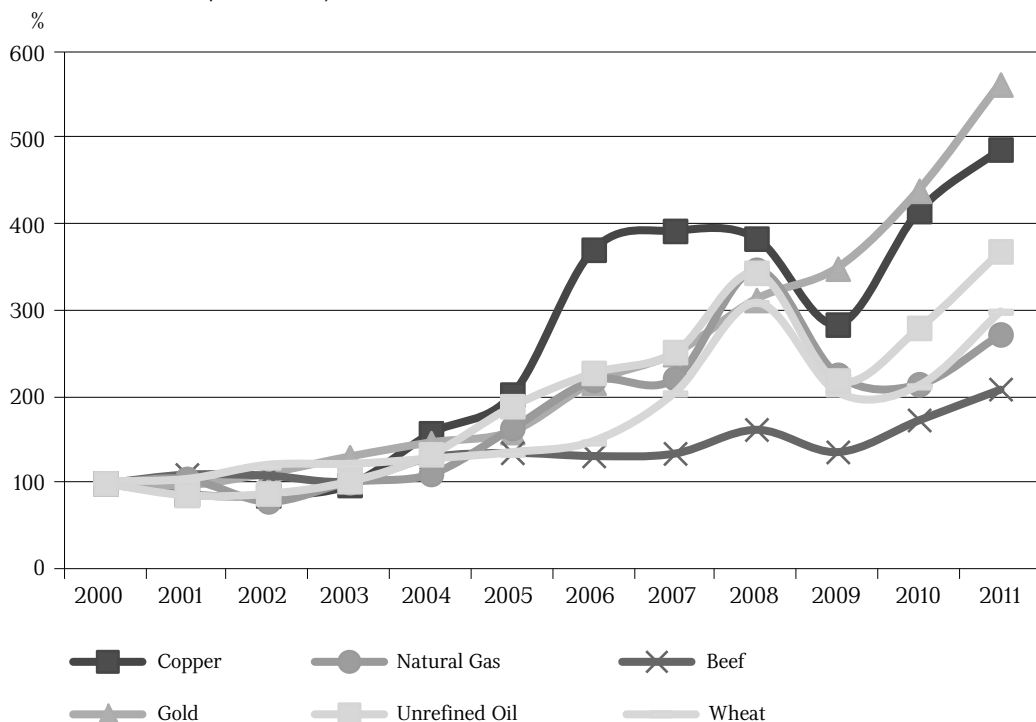
*Diagram 11. International price of gold and global gold production 2000–2011*



Source: WB, Great Britain, US geological research

On the other hand, the drop in US internal consumption, the unstable European bond market and the political instability and increasing interest rates in Asia, continue to halt the growth of product prices, forcing them to an unprecedented level of instability. The trade and exploitation of commodities also causes short-term inaccuracy of pricing, which complicates even the most serious attempts at predicting prices for supply and demand. It is not surprising that those who follow the sector frequently find themselves in an impasse. To take informed decisions in such uncertain market environments requires levels of forecasting that are unattainable for many companies. In spite of planning for different scenarios, the mining companies cannot predict and take all precautionary measures necessary to be prepared for all future possibilities.

*Diagram 12. Comparison of global gold and copper prices with the global prices of other imported products to Armenia 2000–2011 (2000=100%)*



Source: World Bank

It is important to point out that even in circumstances of severe fluctuation the development of international prices of mineral products in the 2000s has had a positive effect for the Armenian mining sector and for the increase in production volumes. Furthermore, international prices of exported copper and gold have been higher than those of several other imported goods (oil, gas, cereal and beef), benefiting the overall effect on Armenia's economy from the viewpoint of external trade, as is evident in diagram 12.

#### 1.4 Investments

Investments play a vital role in the mining sector when considering the efficiency and productivity of extraction. As shown in diagram 13, a medium-sized copper mining company operating for 20 years realises capital expenditure with 1/5 of its income. Such an index is not recorded in the sector in Armenia and it differs drastically from year to year. For the years 2006–2008, by some

assessments<sup>2</sup>, it is significantly low, compared to the medium sized copper mining company operating overseas.

Diagram 13. Revenue structure of medium sized copper mining companies operating for 20 years (%)

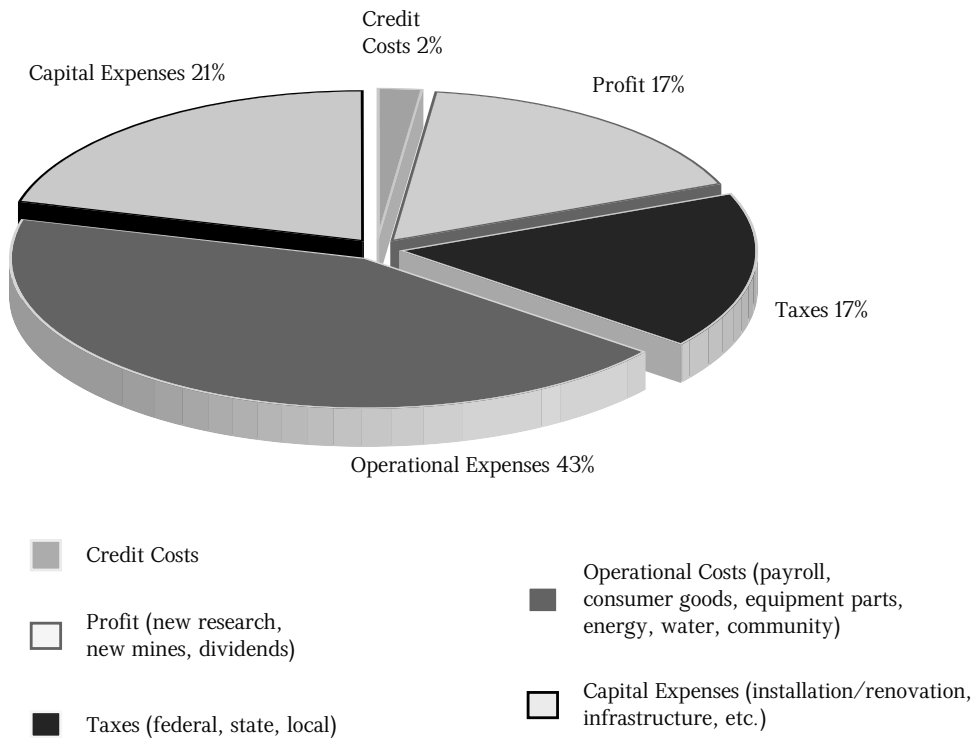
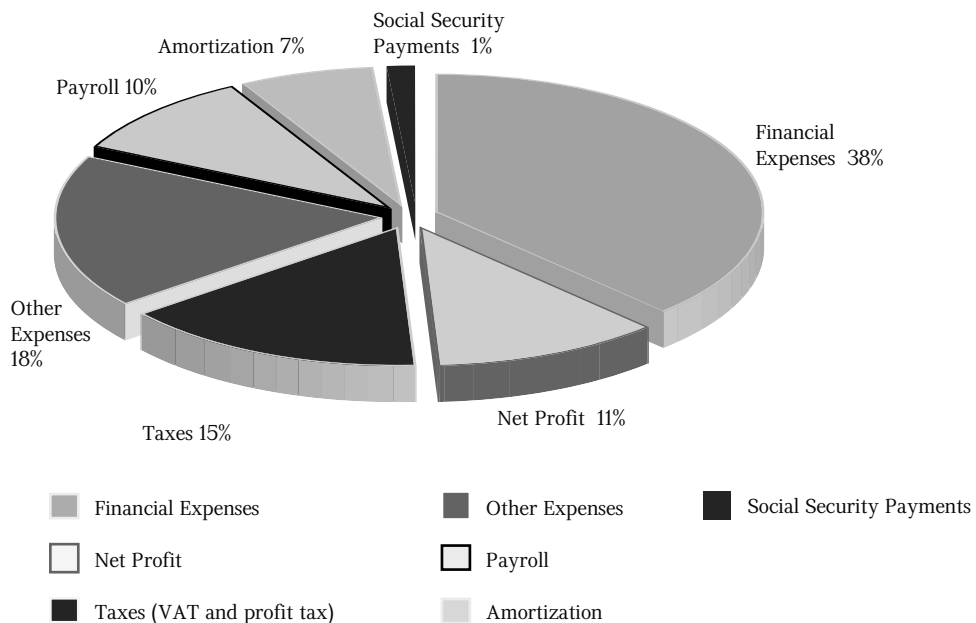


Diagram 14. Assessment of gross income of the mining sector in Armenia 2006–2008 (%)



Source: assessments based on NSS data, "Problems of taxation and investment in the mining industry", OECD

<sup>2</sup> The evaluation has been based on the specific weight of other expenses which for 2006–2008 constituted almost 18% (diagram 14). Besides capital expenses, transport costs, representational costs and environmental payments are included in other expenses.



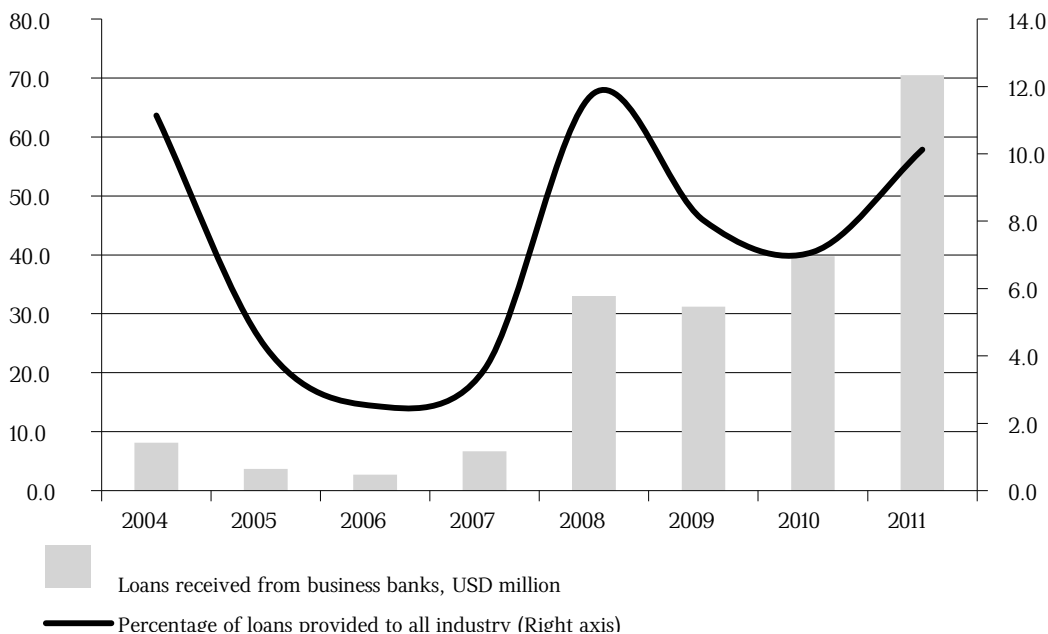
According to the results of studies<sup>3</sup> undertaken by the UN and the World Bank, the 10 basic criteria influencing mining sector company decisions concerning investment are:

1. The geological potential for target mineral
2. The profitability of the potential operations
3. Security of tenure and permits
4. Ability to repatriate profits
5. Consistency of mineral policies
6. Realistic foreign exchange controls
7. Stability of terms/conditions of exploitation
8. Ability to predetermine environmental obligations
9. Ability to predetermine tax liability
10. Stable fiscal system

Further, experts have concluded that three factors in particular are pivotal to investors. These include legal guarantees and permits, stability of terms/conditions of exploitation and the ability to repatriate profits.

Loans provided by Armenian business banks to the mining sector were not large sums prior to 2008 (diagram 15). As the diagram shows, two large increases in volume of loans occurred in 2008 and 2011. If the first increase was done as a result of those enterprises trying to alleviate the consequences of the global economic crisis, then the second sharp increase in 2011 can be attributed to the expansion in company activities with the intention of exploiting new mines.

Diagram 15. Credit reserves provided to mining at year-end 2004–2011



Source: CB

Besides the loans provided by business banks and loan companies, in 2009 the RA government provided budgetary loans with Libor +6 and +8 interest rates to the sum of 54 million USD to four

<sup>3</sup> UN study of 45 companies; author Otto, 2005

enterprises<sup>4</sup>, in order to encourage development of the sector and implement measures against the crisis. Through these means, the enterprises have implemented both the replenishment of working assets and technical refurbishment and have completely paid-off the loans provided by the government.

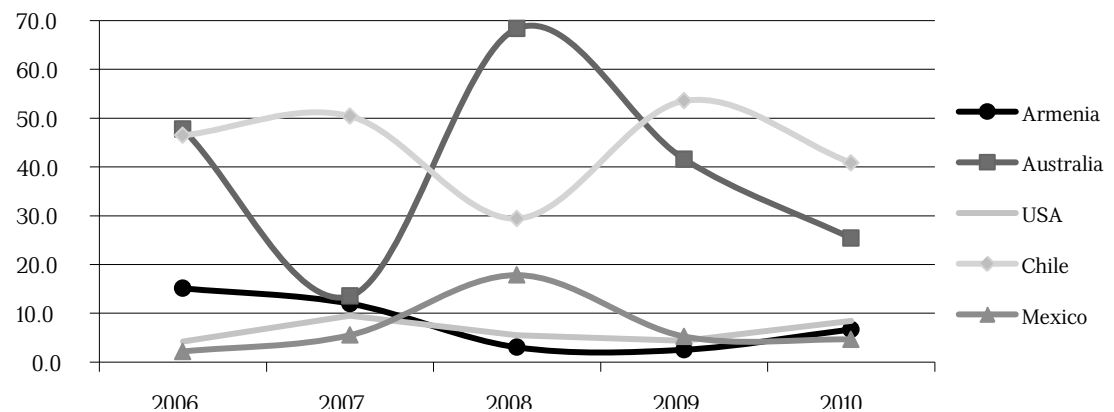
Foreign investments play a significant role in the mining sector in Armenia. In the 2002–2010 period a total of 390 million USD (an average 43 million USD annually) of foreign direct investments (FDI) were made in the sector, of which around  $\frac{3}{4}$ , was realised in the 2004–2007 period (Table 1). 77.5% of the total FDI was made by Germany alone. Apart from Germany, the flow of FDI includes those from Canada, Cyprus, Australia and Switzerland.

*Table 1: Foreign direct investments in mining; millions USD*

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Extraction of metal ores	3.1	12.2	3.4	0.9	17.9	18.4	0.0	0.0	0.0
Other branches of exploitation of mining and open cast mining	0.2	0.0	39.6	97.5	48.1	62.5	33.8	20.9	32.3
Total FDI	141.0	217.7	235.2	303.7	436.7	675.3	1,118.4	828.7	483.0
%of FDI in mining as compared to total FDI	2.4	5.6	18.3	32.4	15.1	12.0	3.0	2.5	6.7

Source: NSS

*Diagram 16. Concentration of foreign direct investment in mining compared to sector leaders 2006–2010 (%)*



Source: NSS, Organisation for Economic Cooperation and Development (OECD)

From 2006–2010 in Armenia, the influence of FDI in this sector was significantly less than that in countries which are sector leaders such as Australia and Chile (diagram 16).

According to 2011 data, Chile produces over 1/3 of global copper, and only one of the five large companies in the mining sector called Codelco is state-owned. The other four are private companies

<sup>4</sup> By the 2009 RA government decisions No. 147-A of February 19 and No. 719-A of June 26, budget loans have been provided to: the Zangezur Copper and Molybdenum Combine CJSC – 10 million USD, Zangezur Mining LLC – 15 million USD, Armenian Molybden Products LLC – 15 million USD and the Agarak Copper and Molybdenum Combine CCJSC – 14 million USD.

of which Antofagasta is listed on the London Exchange and Sociedad Quimica y Minera, on the New York Exchange.

Of the seven large mining companies operating in Mexico, only one is state-owned. The others are private and a certain amount of their shares are bought and sold on the Mexican and London exchanges.

The quotation of a certain number of shares of mining companies on international exchanges, apart from the opportunity to increase and expand their portfolios, can greatly increase the recognition of Armenian companies in other countries, create economic links and increase the flow of FDI.

In terms of assessing investment attractiveness in the mining sector, there are several international publications which present comparative ratings of the main countries. The most reputable are the following.

**Behre Dolbear** is a well-known mineral industry advisory firm, which for more than 10 years, has published Ranking of Individual Countries<sup>5</sup> for Mining Investment. These rankings are qualitative and are based on the results of answers to the question, “Where would you like to invest?” The following seven criteria are chosen for each of the 25 countries:

- the economic system
- the political system
- the degree of social issues affecting mining in the country
- timelines in receiving permits
- the degree of corruption
- the stability of the country’s currency
- the country’s tax policy

According to the 2011 assessment, Australia, Canada, Chile, Brazil, Mexico and USA are ranked from 1-6.

**The Fraser Institute** is a Canadian institute and publishes a *Policy Potential Index* (PPI) based on responses to questions, which ranks governments on how attractive their policies are.

PPI is a brief index which ranks the effects of policies being implemented by governments including uncertainty concerning the administration, the constraints of existing legislation, environmental regulations, regulatory duplication and inconsistencies, taxation, uncertainty concerning land claims and protected areas, infrastructure, socioeconomic agreements, political stability, labour issues, geological database, and security. According to the 2011 assessments, the highest rated are some provinces/states in the USA, Canada, and Australia and the countries, Finland, Sweden and Chile.

“*Study of International Risks*” published by **Resourcestocks Magazine** includes the following 11 spheres of risk:

- Financial risk
- Sovereign risk
- Extracted minerals permit
- Green zones
- Land claims
- Red zones
- Social risk
- Infrastructure
- Civil unrest

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<sup>5</sup> **Behre Dolbear** – select those countries which are considered to be important in the mining sector

- Natural disasters
- Labour relations

According to the “*Study of International Risks*” the list of most attractive countries for mining is headed by Chile, Finland, Burkina Faso, Botswana, Sweden, USA, Australia, Brazil, Canada and Argentina.

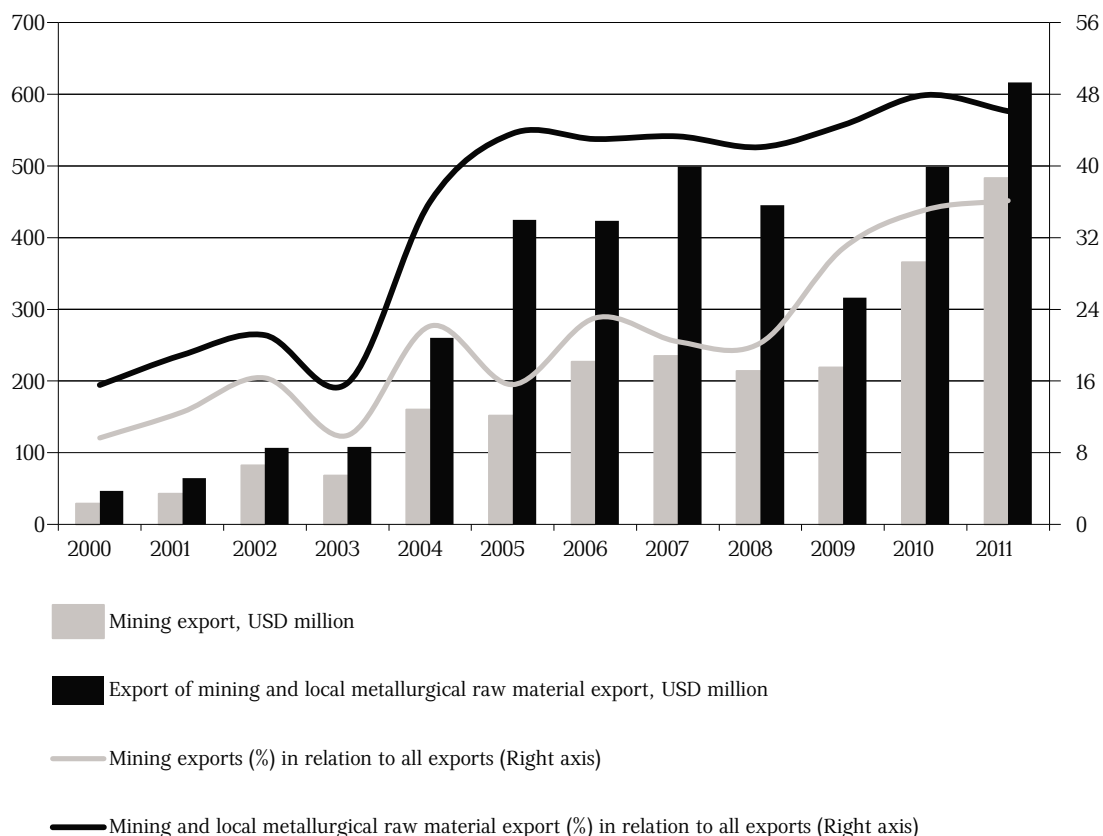
At present, Armenia is not included in the lists of countries in those publications but the opportunities, perspectives, conditions, advantages and usefulness of joining should be discussed.

## 1.5 Exports

The vital significance of mining for Armenia’s economy can be seen by the significant amount of exports in that sector. As opposed to the share of the GDP, mining carries a large weight in export volumes.

Export volumes of the main mining products<sup>6</sup> and the dynamics of their specific weights in the overall export volumes of 2000–2011 are represented in diagram 17. As can be seen in the diagram, the export of mining products in 2000 was 29 million USD while in 2011 constituted more than 483 million USD, which is characterized by the growth of the overall export volumes of those products from 10% to 36%. Also taking into account the export of iron ore and the export of gold jewellery, almost half of all exports are directly and indirectly from that sector.

Diagram 17. Assessment of mining exports 2000–2011

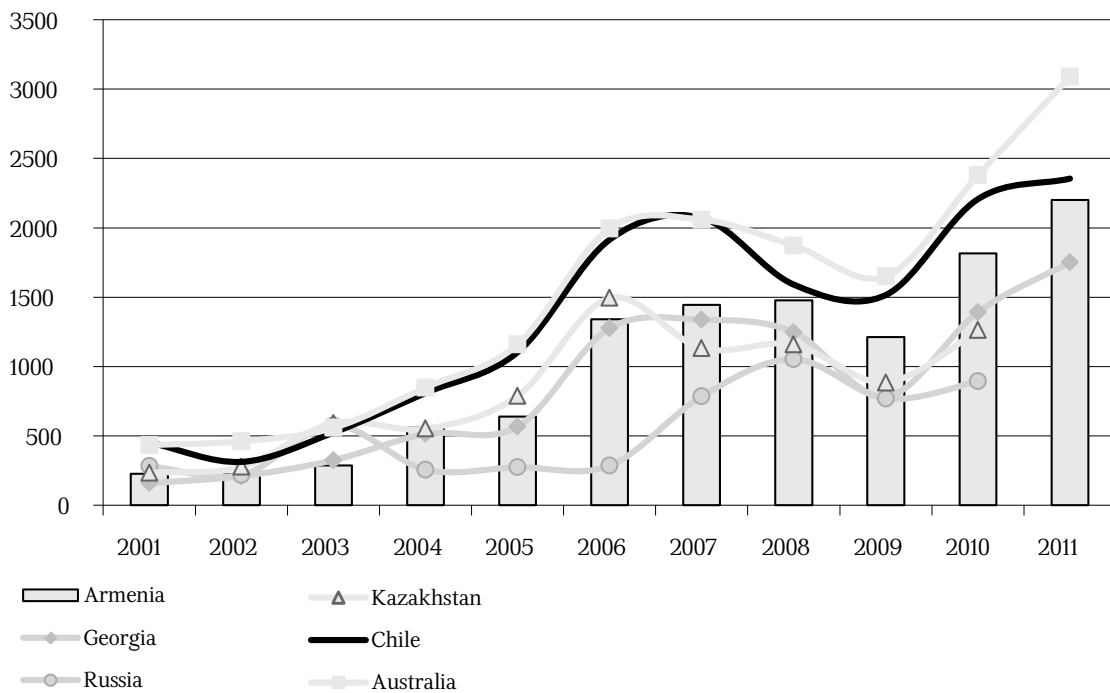


Source: Calculations based on NSS data

<sup>6</sup> Calculations have been made based on the data published in the NSS foreign trade 4 figures for the following 6 products: copper ore and concentrate, Zinc ore and concentrate, molybdenum ore and concentrate, unprocessed or semi-processed gold, powder, unprocessed copper, molybdenum and molybdenum products.

A comparison of mining product export prices in Armenia and international prices for 2000–2011 shows that the differences between them have significantly decreased. For example, the ratio between the international price of copper ore and concentrate and the export price changed from 7.5 times in 2000 to four times in 2011. This is due to the production and export of more expensive copper concentrate, mainly as a result of improvement in the quality of the product and to some extent because enterprises have been able to export at more profitable prices. According to the statistics on foreign trade, the highest prices for export of copper concentrate have been registered in the USA, Canada and Australia (diagram 18), which is clearly due to the production of a higher quality of copper concentrate resulting from the use of up-to-date technologies and leading production methods in the mining sector. Armenia lags significantly behind the leading countries in the export prices of copper concentrate, but to a certain extent surpasses Russia, Kazakhstan and Georgia.

Diagram 18. Copper concentrate prices in a number of countries 2001–2011 (USD/ton)



Source: UN and NSS foreign trade statistics

There is significant potential in Armenia for increasing efficiency in the industrial extraction of metal from copper concentrate, and organizing the production of copper and copper products. As a result of this, it will be possible to reduce the present level of imports and increase exports due to the higher value of exported products.

Because the copper foundry in the city of Alaverdi operates with old and worn technologies, and is environmentally untrustworthy, the construction of an ecologically friendly factory complete with modern technologies in Armenia is very important. Apart from the necessary 100 million USD financial investments there also exists two serious technological issues relating to the minimum production strength required and the export of sulphuric acid during the production of copper.

However, as an alternative, since 2011 the Kajaran Copper Molybdenum Combine has begun negotiations with a Finnish company on the construction of small copper foundries in Armenia based on the models developed in Finland over recent years.

Several projects such as the exploitation of new mines and re-opening of old mines are being discussed in current developmental phases. Their successful realisation will benefit the future development of the copper industry in Armenia.

## 1.6 Taxes

Statistics of the total amount of taxes and compulsory social security payments paid into the Armenian state budget by the mining sector<sup>7</sup> over the period of 2005–2011, are shown in Table 2.

*Table 2: Taxes and social security payments paid by mining companies (millions USD)*

	2005	2006	2007	2008	2009	2010	2011
Total taxes	75.0	88.4	116.8	67.0	28.7	54.7	107.9
Compulsory social security payments	-	4.6	6.7	8.7	4.6	4.2	7.5

Source: Calculations made using data from State Revenue Committee

As can be seen from Table 2 the lowest amount of taxes paid into the state budget was in 2009. This was mainly due to the sharp drop in international prices of molybdenum that year.

At the same time, the analysis of payments for different types of taxes (Table 3) shows that the sharp drop in payment of taxes beginning in 2008 compared to 2007 was due to a significant decrease in value added, to the sum of around 50 million USD. Since an overwhelming part of the mining products are exported from Armenia, the analysis of the dynamics of value added tax (VAT) cannot present the entire situation, in connection with possible over-payment of VAT.

*Table 3: Types of taxes paid by mining enterprises (millions USD)*

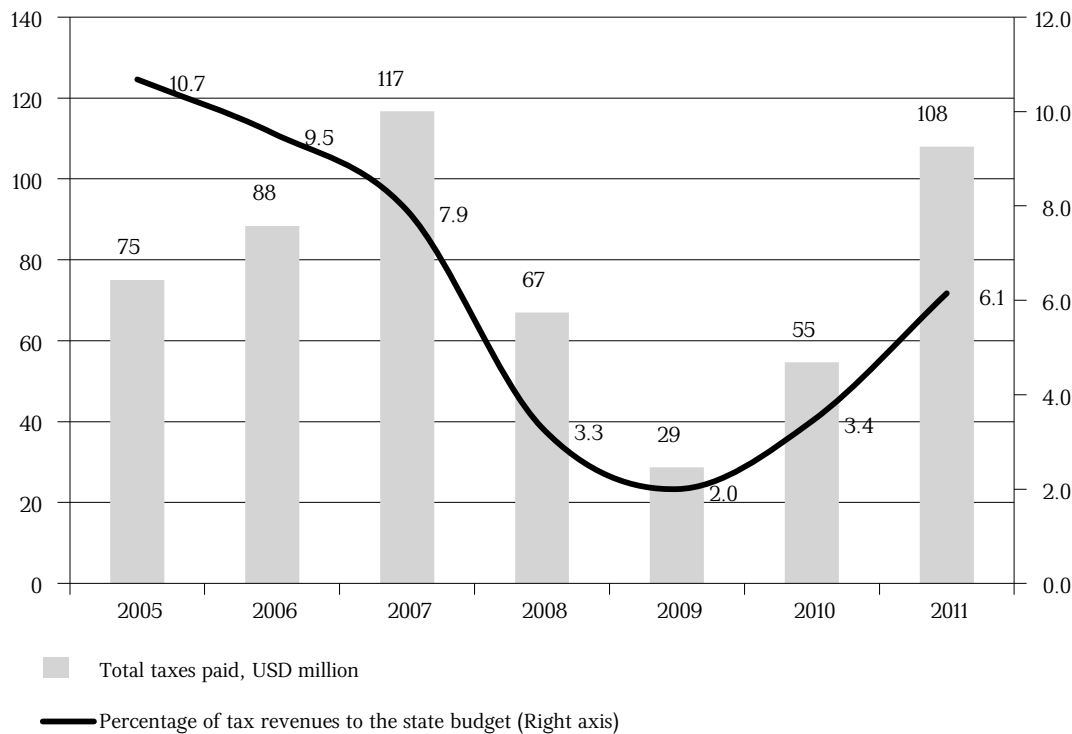
	2006	2007	2008	2009	2010
Total taxes	88.4	116.8	67.0	28.7	54.7
VAT	31.1	63.3	14.5	10.6	18.1
Profit tax	45.1	35.4	24.4	5.2	14.0
Income tax	3.0	6.4	6.1	4.6	5.9
Other taxes	9.2	11.7	22.0	8.4	16.6

Source: Calculations made using data from State Revenue Committee

Apart from the taxes paid in to the state budget by mining enterprises, an effective tax rate is considered an important indicator in this sector. The effective tax rate is calculated as the ratio between total taxes actually paid and the gross incomes (in some cases also gross profit). The taxation of mining is a very important state policy issue which raises questions about the just exploitation of the nation's natural assets. Due to the diversity in the sector, it is not possible to take the optimal tax system of any country as a model for Armenia, but there are some general characteristics that the state must pay more attention to when setting the optimal level of tax burden. These are:

- Whether the payments are adequate for society
- Whether the investors are getting a fair return
- Whether the system is competitive with other countries

Diagram 19. Assessment of taxes paid by the mining industry 2005-2011



Source: Calculations made using data from State Revenue Committee

According to the afore-mentioned WB and UN studies, the ideal limit for the effective tax rate (calculated as the ratio between the total taxes paid to the state and the gross profit), has been assessed at around 40-50%. In general the countries have been divided into three groups. The first group is that in which the effective tax rate of the countries constitutes 25-40%. The countries in that list are Sweden, the south of Australia, Chile, Zimbabwe and Argentina. Those countries in the ideal effective taxation list are China, Papua Guinea, Bolivia, Republic of South Africa, Philippines, Indonesia, Peru, Tanzania, Poland, Mexico, and the State of Arizona. The third group includes those countries where the effective tax rate is higher than the level of the ideal tax rate. These are Greenland, Guinea, Ghana, Mongolia, Cote d'Ivoire, and Uzbekistan. According to assessments based on statistical data, from 2005-2006, Armenia falls into the third group, with a tax rate of over 50%.

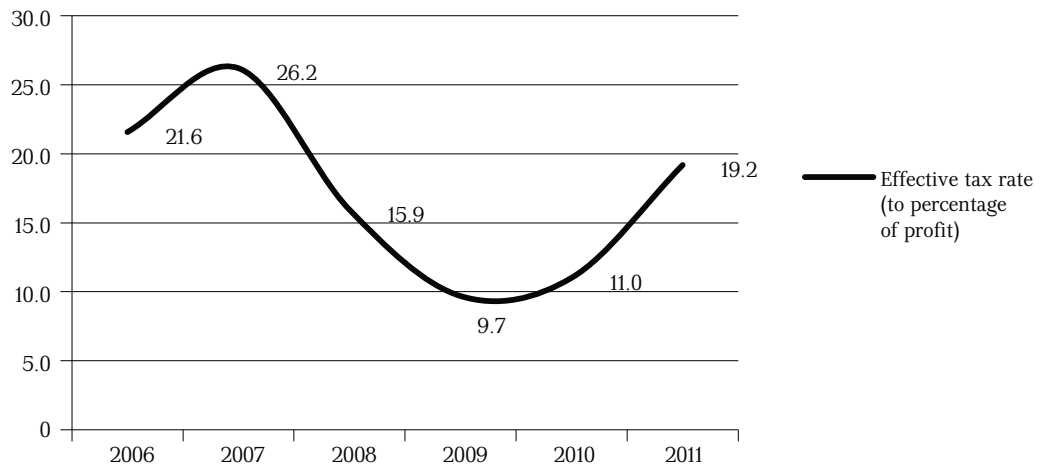
The dynamic of another effective tax rate index, calculated for the previous six years as the ratio between the total taxes paid to the state and gross revenue, (diagram 20), shows that they have significantly fallen in 2008 and 2009. The highest level was in 2007 at 26.2%.

In order to ensure the stability and highest level of the effective tax rate, the primary issue for the government is measures aimed at raising the efficiency of tax administration in the mining sector. In December of 2011, the government adopted a decision<sup>7</sup> to designate representatives of the taxation body to four large enterprises in the sector.

<sup>7</sup> According to the RA government 2012 decision No. 1834- N of December 15 "on designating representatives of the taxation body to tax payers," representatives of the tax body are appointed to Zangezur Copper and Molybdenum Combine CJSC, Agarak Copper and Molybdenum Combine CJSC, GeoProMining Gold CJSC and Dino Gold Mining Company CJSC.

Taking into account the severe instability of mining products in international markets, the planning and forecasting of state budget revenues from the mining sector are difficult and significant deviations are possible. This can negatively reflect on the execution of state budget expenditure. Consequently, for budget forecasting, it is expedient to apply the lowest, conservative scenarios of internationally predicted prices.

Diagram 20. Assessment of effective tax rates in the mining industry 2006-2011



Source: Calculations made using data from State Revenue Committee

## 1.7 Employment and salaries

As of 2010, 62 enterprises operate in the Armenian mining sector, of which seven are in metal ore production and 55 in mining and open mine exploitation. All the enterprises are non-state institutions.

From 2002 to 2010 approximately 7,700 workers were employed in the mining industry (Table 4), which constitutes 0.7% of total employed persons in Armenia's economy. The number employed in mining is very small compared to the total employed however the future development of the sector can benefit the economic activity and increase employment of adjacent industries, especially the transport, metallurgical and construction sectors.

Table 4: The dynamics of employment and salaries in the mining industry 2002-2010

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Employed in mining: thousands	7.9	8.2	6.9	7.0	7.6	8.6	8.3	7.3	7.6
Total employed: thousands	1,106.4	1,107.6	1,081.7	1,097.8	1,092.4	1,101.5	1,117.6	1,089.4	1,104.8
Mean monthly salary in mining: USD	102.1	152.6	180.6	233.2	308.3	469.2	593.1	484.4	580.9
Mean monthly salary in economy: USD	47.7	60.1	81.4	113.7	149.7	217.0	285.7	264.3	274.7

Source: NSS

Apart from promoting increased export volumes, the construction of a new copper foundry can also increase employment in related spheres. Presently, around 10,000 people work in the seven enterprises<sup>8</sup>

<sup>8</sup> According to the study conducted by "EV" Consulting company, Geo Pro Mining Gold CJSC, Armenian Copper Program CJSC, Zangezur Copper and Molybdenum Combine CJSC, Akhtala Mountain Enrich Combine CJSC, Gaj CJSC, Yerevan Cable LLC and South Caucasian Railroad CJSC, are included in the immediate value chain.



included in the immediate value chain of constructing a new copper foundry. Taking into account that the construction of a foundry will increase production strengths of those enterprises and a 10% increase in jobs in the immediate value chain companies alone will constitute 1,000 individuals.

The mean monthly nominal salary in mining, expressed in USD, over the full period is more than double the mean salary in the general economy (Table 4) and that index is higher than in Australia and the USA, where the mining salary exceeds the mean salary in the economies 1.7 and 1.5 times, respectively. In general, although salaries in the cost price have increased in 2010 as compared to 2004, their specific weights were low in 2005–2007. This was linked to the increase in the specific weights of material costs during those years (table 5).

*Table 5: The specific weights in percentages of production costs of products (goods, services) in the mining sector<sup>9</sup>*

	2004	2005	2006	2007	2008	2009	2010	04-10 average
Material costs	42.3	59.4	59.6	56.6	42.4	41.4	43.5	49.3
Labour compensation costs	14.8	11.1	9.5	11.0	17.0	15.8	17.0	13.7
Compulsory social security payments	1.9	1.5	1.8	2.0	2.0	2.0	1.9	1.9
Depreciation	12.4	5.3	4.9	5.4	14.2	17.6	15.2	10.7
Other expenditure	28.6	22.7	24.3	25.0	24.4	23.2	22.4	24.4

Source: NSS, "Finance Statistics of Armenia"

In many low income countries, there is a general tendency to pay much higher salaries in the mining sector than the remaining sectors of the economy are able to. This attracts the more able individuals from the public and private sectors and thus negatively affects those sectors, by depriving them of their top experts.

At present that problem is not palpable in the Armenian mining sector due to its relatively low influence. However, taking into account the possibilities of expansion programs planned for the coming years, problems may increase.

Another possible effect in the mining sector concerns the crowding out of human capital. States which significantly rely on the export of natural resources may ignore the development of education, because it is not an immediate concern. In contrast, countries poor in resources such as Singapore, Thailand, and South Korea invest massive amounts into educational development, which palpably promotes economic success in those countries. However, it is necessary to note that individual researchers consider this assessment debatable and demonstrate that natural resources bring in relatively easy tax payments which are frequently spent on the education sector.

## 1.8 Conclusions

The most important issue that Armenia is now facing is the effective management of mining revenues. The purpose of this, in the short-term, is to overcome possible negative price fluctuations in international markets, and in the long-term to not allow a drop in the economy and the standard of living when those resources are completely or significantly exhausted. In essence, this issue is one of choosing the correct correlation between consumption and investment. The unacceptability of the present generation to completely extract all the mining deposits of a country and not give

<sup>9</sup> Calculated by NSS according to the sampling method for the organizations involved and applied over the complete sector.

the coming generations a chance to engage in mining, is also a widespread concept throughout the world. For this reason experts find that if the present generation uses revenue to create effective capital, it can be useful for future generations. Undoubtedly, future generations will have more sophisticated and effective technologies, in part based on the intellectual capital of the previous generation, and will be in a position to discover many other mines and engage in more efficient activities.

Therefore, a significant part of the revenues from mineral products must be used to develop the base of an efficient economy. In other words, natural mineral deposits must be substituted by long-term actives, such as sustainable technologies, physical and social infrastructures, and also human capital. As a viable and long-term strategy it is necessary to transition from economic dependency on non-renewable mining revenues towards diversified alternative sectors.

In order to avoid boom and bust cycles, many analysts recommend and support the creation of separate Funds for the management of financial flows received from mining, which are not included in state or community budgets. Although there are other opinions concerning the creation of separate Funds, analysts overall find that the use of those means is more important.

The Norwegian State Pension Fund, formerly known as the Petroleum Fund of Norway, is the largest pension fund in the world. Despite the fact that it is called a pension fund, revenues are in fact formed from oil and not from pension payments. As of the end of 2011 the fund amounted to 573 billion USD or one percent of the global capital markets. The aim of the Oil Fund, whose income is on the whole created by taxation of the companies, and also by licenses permitting exploitation and the dividends of the partially state-owned Statoil, is to invest a portion of the huge income from the Norwegian petroleum sector. The Norwegian Oil Fund plays the role of both a “Stabilization Fund” and a “Fund for Future Generations.”

The “Russian Stabilization Fund” was created in 2004 and operates as part of the federal budget, when oil prices drop below the set level. The Fund’s sums are used for both the security of macro-economic stability and the realisation of investment projects aimed at decreasing budget expenses for future generations.

Similar Funds using proceeds from petroleum income also exist in Venezuela (Fund for Macroeconomic Stability), Kuwait (Reserve Fund for Future Generations), Oman (State General Reserve Fund), Azerbaijan (State Oil Fund of Azerbaijan), Alaska, Papua New Guinea (Mineral

Resources Stabilization Fund), UAE (Abu Dhabi Fund for Development), and Iran (Central Bank of Iran’s Oil Stabilization Fund).

The “Copper Stabilization Fund” was created in 1985 in Chile. Each year the Finance Ministry in Chile sets a decisive, base price for copper. If the copper export price exceeds that set price, the excess income is transferred from the budget to the Fund. Those resources are subsequently used in those years when the price of copper falls below the “lowest” set level. This structural unit has helped Chile to withstand market instability. Besides this, they also make use of the “Copper Stabilization Fund” when



Natural mineral deposits must be substituted by long-term actives, such as sustainable technologies, physical and social infrastructures, and also human capital

there is a need for large sums. A certain sum will particularly be allocated to those who suffered from the disastrous earthquake of 2010. At the start of 2006, the Fund had accumulated over 1 billion USD.

According to Article 43 of the present RA law “On joint stock companies,” reserve funds are created with at least 15% of the share capital in joint stock companies. These are used to cover company losses, to repay bonds and to buy back shares when the company profits or other means are unable to do so.

Since the size of the share capital may not adequately reflect international price fluctuations and the changes in revenue and profit dependent on that, when new Funds are created it is beneficial to direct them mostly towards investment, using the size of income or profit as a base.

## Chapter 2. The problems of processing non-metallic minerals and prospects for development in Armenia

### 2.1 The economic potential of non-metallic mineral resources in Armenia

Armenia is rich in non-metallic mineral resources which have many applications and are in high demand around the world. Our country is one of the leaders in the world for certain kinds of non-metallic minerals (see Table 1). The volcanic-mountainous rocks, tuffas, perlites, pemsas, zeolites, limestones, dolomites, diatomites, bentonites, quartzes, volcanic slags and other minerals in Armenia are of particular value and significance. There are also huge reserves of a variety of basalts, granites, nepheline syenites and marbles. Over 700 deposits of non-metallic mineral resources have been discovered in the territory of the republic.

*Table 1. Reserves of non-metallic useful minerals within the territory of RA (as of 01.04.2011)*

Available ore	Total assessed reserves: million cubic metres
Basalts	436.24
Tuffas	2,500.00
Lithoidal pemsa	169.68
Perlites	141.78
Diatomites	30.43
Bentonite clays	56.70
Travertine	38.40
Dolomites	15.69
Quarzes	15.57
Zeolites	12.10
Andesites	11.40
Limestone	9.20
Obsidian	11.00

Source: Ministry of Energy and Natural Resources

The construction industry in Soviet Armenia had achieved quite a high level of development on this rich base. During those years the production of construction materials was represented by large enterprises such as “Artik-Tuff,” “Ani Pemsa,” “Aragatsperlit,” “Haymarmar” and others. Overall, several enterprises operated in this sphere of the economy, some of which exported their products to Russia, the former Soviet Republics and also to developed European countries. It is

important to note that this branch was gradually acquiring a knowledge intensive approach to development. Three scientific research institutes, “General and Inorganic Chemistry,” “Materials” (Glass Institute), and “Rock and Silicates,” operated in the sector and employed over 1,000 workers. The numerous processes realised by these institutes were applied in different industries in Armenia, Russia, the Ukraine and other former Soviet republics. In other words, during the Soviet era, huge potential for innovation was realised in this sector.

The enterprises in this industry were privatised at the start of the Millennium. As a result of losing external markets, today those enterprises are not operating at full capacity and are at best working at minimal strength. Today, non-metal useful ores are essentially not being re-processed except for cement, cladding tiles and the production of building materials. Their production volumes are dozens of times less than in the Soviet era.

The efforts being put into introducing high-technologies have not yet shown results. The “Aragats-perlite” factory is not operating even as a raw material exporting enterprise. On the other hand it is noteworthy that numerous scientific developments have been made in that direction (several patented works, laboratory and workshop productions etc. exist). In the words of A. Musheghyan, a leading expert in the Materials Institute of the “Rock and Silicates Institute” alone, 3 doctorate and around 150 PhD theses have been defended. In the long-term, these represent practical interest for the production of products based on the processing of non-metal ores. In the case of the application of just a few existing developments, non-metal minerals can become the basis for the creation or re-operation of several enterprises, whose products will be in demand in Armenia and other countries.

The more promising products based on processed Armenian raw materials can be used in different branches of the economy, energy, electro-technical, chemical and food production, agriculture, medicine, construction materials and construction, the military industry, etc. For example, the number of products based on reprocessing of perlite alone exceeds 150.

However, the sector is not being used to its fullest potential due to numerous hindrances. Of these, the following can be singled out:

- The absence of state assistance in the sale of prospective products in internal and external markets,
- The absence of “soft” credit,
- The absence of the production-science-education innovation chain,
- The isolation of the enterprises in the sector and the absence of a link coordinating their interests.

## **2.2 The strategic importance of the branch for the development of Armenia’s economy**

The RA government considers the increase in the country’s competitiveness to guarantee the long-term sustainable development of the economy. It also will guarantee the formation of a qualitative transformation of economic growth and a system of efficient structural relocation, which will promote those sectors and companies utilizing high tech aimed at a resource saving and knowledge intensive economy. This way, the non-metallic mineral processing sector can become a main section of the Armenian economy, capable of securing discoveries, fast introduction of innovative technologies, and production of new products which can compete in external markets. For example, as a result of reprocessing perlite rocks, it is possible to produce thermal and electrical insulators, delicate filters, white, coloured and cellular glass, crystal, fire-resistant fibre and so on. Apart from their traditional usage, basalts can be used in the chemical industry

for acid-resistant equipment, as a raw material for stone casting. The acid-resistance and wear-and-tear resistance of items prepared in this way, particularly of pipes, tiles and electrical insulators can replace magnesia and other types of steel which are used in the metallurgical, chemical, paper, cement, automobile and other industries. Studies conducted at the Kiev Institute for Nuclear Research show that tiles produced from basalt flakes provide protection from radiation waves. The list of products obtained from the processing of Armenian non-metallic ores could go on. Therefore, there is no doubt that the products of reprocessed non-metallic ores can encourage competitiveness and the creation of a knowledge based economy.



The products of reprocessed non-metallic ores can encourage competitiveness and the creation of a knowledge based economy

The government of the RA also emphasises the importance of introducing tools of state assistance in the drafting of developmental projects by system creating companies. It is planned by studying international experiences in cluster development, setting the cluster creating sectors in the republic and through a targeted cluster policy to initiate and systemise the creation of research and production and service clusters in the republic. In Armenia the reprocessing of non-metallic minerals is a typical cluster industry. The large local companies in this sphere can gradually become the innovative motor which the small and medium enterprises will follow. That form of development in the sphere will also benefit regional proportional development.

Today, in developed countries, one of the effective tools for the realisation of an innovation policy is the development of public and private sector partnerships (PPP). As a result of correctly devised plans, that form of partnership creates significant economic results, unites the potential of the best researchers and assists the emergence of knowledge-based industry and regional clusters. In many respects, the non-metallic mineral companies in Armenia can become a good example of PPT. As a rule, PPT assumes the presence of private enterprises with mixed forms of ownership, in which case the state company realises its intellectual investment and the private company, the financial and administrative investment. These are successfully “invested” in the “innovation chain” and in comparison to the isolated private companies, have more opportunities to fill niches with their value added goods and services. At present a large part of the enterprises in the non-metallic mineral processing sector in Armenia are in favour of, and even anticipate, state participation in their activities (see RA Ministry of Energy and Natural Resources: Draft Concept of developing non-metallic mineral processing sector, Yerevan 2009).

Based on the present situation, it is vital to orientate the Armenian public-private partnership projects in the non-metallic mineral processing sector towards achieving the following goals:

- Assistance to innovative projects in enterprises in the sector
- Development of cluster research orientated towards export markets
- Creation of corresponding infrastructures for the transfer of public sector research results to industry
- Encouragement of initiatives towards creating networks by enterprises in the sector
- International cooperation
- Optimal state participation in the share capital of the most important companies in the sector

The development of the non-metallic minerals re-processing sector is one, which in a short period of time, can help achieve the aims set by the RA conceptual directions for the development of industry.

### 2.3 The prospective for the export of products obtained from the re-processing of non-metallic minerals

Products based on the re-processing of Armenian perlite may play a special role and hold importance when entering export markets.

Perlite is an international commodity. The main exporters of perlite are the leading extracting countries: Greece, Turkey, Hungary and Italy. The largest volume is exported by Greece, consisting of over 60% of its production. USA exports 5-7% of its production. The main consumers of perlite and various products based on perlite are countries with highly developed economies: USA, Japan and Western Europe (Germany, Great Britain, France, Austria, The Netherlands, etc.).

*Table 2. International production of perlite, thousand tons (according to main countries)*

Country	2007	2008	2009
Armenia (a)	50	50	50
China(a)	700	700	700
Greece	1100 (a)	1000	863
Hungary	68	132	82
Italy(a)	60	60	60
Japan(a)	230	230	230
Mexico	54	43	51
Russia (a)	45	45	45
Turkey (a)	160	160	160
USA	409	434	380 (a)

(a) – estimated figures

Source: World Mineral Production, 2005-2009.

In their expansion properties, Armenian perlites and obsidians are the best in the world. The qualitative characteristic of Armenian perlite surpasses the indices of other deposits several times over. At one time, Armenian perlite was exported to 200 locations including Italy, Belgium, and Spain.

The “Aragatsperlit” factory which at a time operated 6 workshops was sold in 1998 to the American company “Decolite.” The enterprise’s valuable equipment has been taken out of the republic and sold. At present only one workshop is operating. Up until 2002-2003 “Decolite” exported 200-300 thousand tons of Aragats perlite to the Netherlands, Switzerland and other countries. The “Aragatsperlit” factory has not operated effectively since 2003.

In recent years a great deal of discussion has taken place about restarting the operations of enterprises in the non-metallic mineral processing sector, which are virtually at a standstill.

It should be noted that the “use of non-metallic resources” complex project, (responsible executor “Qar yev silikatner” SRI, chief project developer “Hayardshinanyuter” state production unit), had already been drafted and approved by the RA Ministry of Economy in 1993.

On July 18th, 2009 the RA Ministry of Energy and Natural Resources created a working group of experts which developed and presented a draft of the “development of non-metal mineral

processing sector” concept for government consideration. The concept was approved during two sessions at the operational headquarters of the support to programs contributing to economic development projects. According to the energy minister, supplementary research is currently being done for approval of the document’s final version. Apart from that, the RA MoENR has presented proposals for government consideration to re-operate the five leading enterprises in the field. The problems and prospects for development of this field have also been discussed in the RA Public Council. As a result of the discussions, on June 4, 2010 the latter proposed to the RA Prime Minister that the non-metal mineral processing sector be declared an economic developmental priority.

It is noteworthy that according to the 2007 plan of measures for the implementation of “RF and RA long-term development cooperation Project, to 2010,” the possibilities for the supply of 1,000,000cu.mtr. thermo-insulating materials (thermo-insulating tiles obtained from penoperlite for construction, segments and casings for power tubes) processed by the RF from Aragats perlite and the powders of differing structures and components obtained from Armenia’s non-metallic minerals (perlite, diatomite, zeolite, tuffa etc.) were provided for. This “plan” also anticipated opportunities for organisation of production of acid-resistant and wear-and-tear resistant items (tiles, tubes, decorative and multi-coloured rocks from molded basalt, etc.), in the Karakert stone casting factory (KSCF). At a later stage, it is planned to organise production in the territory of the RF (close to the Caucasus border) based on the supply of raw perlite.

Although these plans have not yet been implemented, potential cooperation exists in this sector both with Russia, CIS and other countries. Taking into account the rate of production development of thermo-insulating and sound-insulating materials from perlite in the developed countries, there will be significant changes in the volumes of utilization and structure of the above mentioned materials for the NIS and other countries in the near future.

Metallurgical enterprises are the largest consumers of expanded perlite. In the 80s and 90s expanded perlite was widely used in the casting of iron and steel.

Thus, up to 90kg/cu.mtr. filling concentrate of expanded perlite is used for foundry ladles, metal moulds, and casting moulds in metallurgical factories to insulate the melting surface. The thermo-insulating layer hinders the rapid cooling of the molten metal. At the same time the mixtures in the metal, the slag, enter the profitable part and thus improve the quality of the main metal. Their concentration in the useful part increases the exit of the useful metal at the cost of one kilogram.

Another use for expanded perlite in metallurgy is casting mixtures. The addition of perlite to the casting sands makes the mould walls less thermo-conductive. This contributes to the slow cooling of the molds and consequently the complete exit of the mixtures and slag to the useful removable part.

The technology of purifying powders has been developed in the RA Academy of Sciences. At one point, 100 thousand tons of powders were produced and they are in no way inferior



On June 4, 2010 the RA Public Council proposed to the RA PM that the non-metal mineral processing sector be declared an economic developmental priority

to the substitutes produced by foreign companies. Those powders are used for preservation of flowers, vegetation and agricultural produce. Refining powders are also used to obtain different hard and abrasive materials, which are used in radio equipment, the electronics industry, and the military-industrial complex. At the start of the 90s the NIS countries were receiving different kinds of purifying powders, based on the raw perlite from the Aragats perlite deposit, from Italy, Belgium, and the American “Decolite” and “Celite” companies.

In 1986 “Aragatsperlit”, ПИА 63-15 equipment with an annual capacity of 1,000 tons was set up for the production of natural abrasive powders. The enterprise supplied its product for three years to the aviation, ship-building, radio equipment industries and automobile companies. Germany, Great Britain, Japan, and Czechoslovakia showed great interest in Armenian abrasive powders. All scientific developments concerning the production and application of abrasive powders had been completed. This product can be used in the military-industrial complexes of both Russia and the Ukraine.

Thus, the possibilities for applying expanded perlite are broad and the global consumption is growing. The NIS countries, where the consumption level of those products is still far from the levels in developed countries, are a particularly large prospective market for Armenia. An increase in the volume of expanded perlite consumption can be expected in Russia and the NIS for the production of thermo-insulating materials among other things. Today, in Russia alone, the consumption of thermo-insulating materials is 50 mln.cu.mtr. In this sense, the production of KSCF thermo-insulating materials (penoperlite) has long-term potential. Apart from the energy sector, thermo-insulating materials are in demand in the Russian construction and utilities sectors.

Basalt and its by-products also have a large export potential. The production of the following export-oriented products based on Armenian basalt may be organised:

- Continuous basalt fibre, for which the technology at the “Electramekusatsman” factory in Sevan must be modernised.
- Basalt-ceramic filters
- Andesite flour
- Stone-casting, based on the production-technology of KSCF
- Ultra-fine fibres, thermo and sound-insulating materials and also hard flags obtained from basalt fibres, based on the production-technology of the Sevan “Apakemekusich” factory
- Hard basalt fibres which can be used in the production of concretes and reduce the metal used for that purpose

There are also many possibilities for the export of processed non-metallic mineral resources in the following sectors:

- The comprehensive processing of Armenia’s magnesium containing mountain rocks, of which there are more than 10 billion tons;
- Production of bentonites. These are used in the oil/gas, chemical, food and other industries;
- The production of filtering powders obtained from diatomites. At present the “Kharberd Diatomites Factory” is successfully exporting filtering powders to Germany, Poland, Norway, China, Russia, Byelorussia, Kazakhstan and the Ukraine;
- The production of hydraulic limestone based on Armenian carbonates. A factory for this production operated in Jajur during the Soviet era. The product was exported to Russia. The factory ceased working after the earthquake in 1988;
- The production of multi-purpose rock powders which can be produced for abrasive material printing equipment, special fillers, mineral pigments, etc.



## Chapter 3. Legal regulation of mining

### 3.1 Introduction

The mining sector in Armenia is regulated by the recently adopted “Code on Mineral Resources” and also by numerous other legislative acts enacting that code, the majority of which are still in the drafting stage. As of yet, it is difficult to come to any conclusions regarding the effectiveness of this legislation. International structures, including the World Bank and EU experts participated in its drafting.

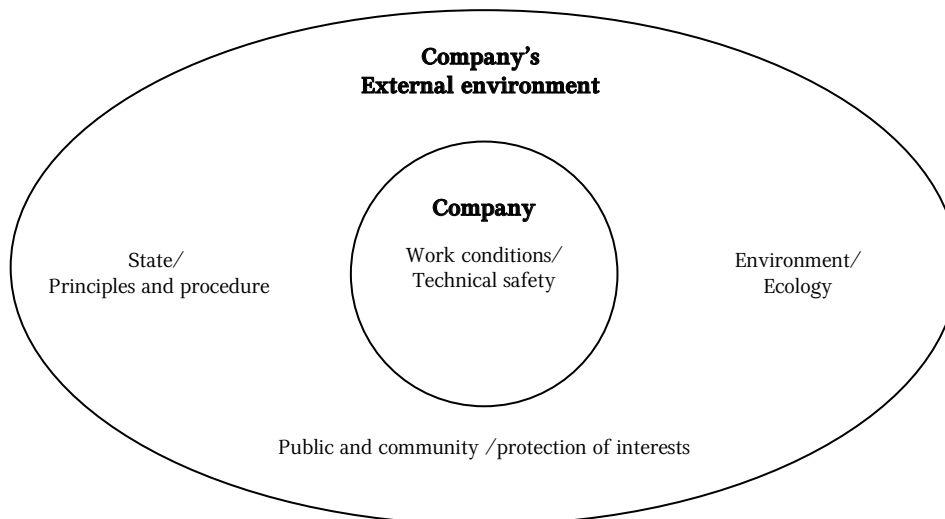
The Ministry for Energy and Natural Resources<sup>10</sup> is authorised to regulate the mining sector, including the provision of permits for geological surveys aimed at the extraction of useful ores, and the expert supervision of geological surveys and extraction.

The effects on nature and the environment is the responsibility of the Ministry of Nature Protection<sup>11</sup> which sets relevant rules and performs initial assessments of the working plans of geological surveys. This Ministry also performs expert examination of the mining projects.

The Ministry of Emergency Situations<sup>12</sup> is responsible for the supervision of technical safety. Its subordinate, the National Centre for Technical Safety sets the safety rules and norms and performs examinations of mining projects.

Currently, numerous problems exist in the regulation of the mining sector in Armenia. In general they include the internal and external environments (see picture) of the companies in the sector and concern:

1. The impartiality of the principles and procedures for use of the extracted minerals,
2. The protection of the environment,
3. The guarantee of technical safety,
4. The protection of the rights and legal interests of all parties.



Amongst the problems, the distribution and supervision of permits according to the present procedure, and the corruption risks present in the examination system should be pointed out. Concerning the ecology and technical safety, the absence or omission of necessary scientific research institutes in the process of drafting standards and technical rules of procedure, are noteworthy shortcomings.

10 Ministry for Energy and Natural Resource: [www.minenergy.am/](http://www.minenergy.am/)

11 Ministry of Nature Protection: [www.mnp.am/](http://www.mnp.am/)

12 Ministry of Emergency Situations: [www.mes.am/](http://www.mes.am/)

Of the numerous ecological problems, it is also possible to point out that where funds for nature and environmental protection are continually being replenished, work to restore damaged land is not being done. There are no levers to force the extracting companies to do so. The issue of management of the industrial waste dumps which accumulate during extraction is also contradictory. When the profitable use becomes debatable, they threaten the health and safety of the residents of neighbouring communities.

Perhaps in the light of all that has been mentioned above, the issue of sufficient remuneration for the country and especially the communities involved is of special importance. As far as useful ores are concerned, according to the recently adopted changes and supplements to the law “On tariffs for ecology and use of nature,” a tariff of at least 4% is levied as royalties<sup>13</sup> which is calculated on the revenue from sales (without VAT). This is an improvement on the previous tariff of 1%. However, in the case of the super-profits from mining, this increase is still too small. It is essential that a certain part of the royalties and natural resource charges (for non-metallic ores) are directed towards the systematic resolution of social issues in the communities.<sup>14</sup>

Detailed work has been done within the framework of this project, to study the best international practices regarding each of these issues. These are presented in relevant sections of this text. They are followed by the final section on conclusions relating to Armenia.

### **3.2 The principles and procedure for the use of extracted minerals**

The overall social-economic development, legality, transparency and liability concerning all functions are extremely important for the strategically significant mining sector. Towards this end, international practice includes the application of different tools and levers.

#### **3.2.1. Independent regulatory bodies**

Certain countries create special independent agencies for the regulation of mining. They specially limit the administrative discretion of state bodies and their inappropriate influence on the regulators. By including independent experts, these specialised agencies can develop a higher level of trained personnel in the sector. In general, independent regulating agencies raise the efficiency of public management.

In particular, Brazil has planned to create an independent National Mining Agency which will replace the National Department of Mineral Production. The provision of licenses for mining will be one of the particular functions of that agency. The committee, which will be appointed by the Senate, will manage the agency. The members of the committee can only be removed by the Senate, thus ensuring the necessary independence.<sup>15</sup>

Ghana already has an independent agency, the Minerals Commission, which was originally created to reduce bureaucracy in the sector, improve administrative efficiency and reduce corruption. The Ghanaian Minerals Commission has a council appointed by the President which consists of 9 members including the president and executive director. The administrative functions of the commission are independent of the government and include supervising the implementation of government policy. Applications for permits are given to the Minerals Commission which then presents its proposal to the Minister of Lands and Natural Resources. The latter makes a decision based on that

<sup>13</sup>  $R=4 + [P/(Rx8)]$ , where P is the profit before tax and R is the revenue from sales, excluding VAT.

<sup>14</sup> the above-mentioned issues have been revealed during research and also as a result of discussions with the relevant employees in the ministries.

<sup>15</sup> State's player/ref role makes independent mining regulation essential – Leon; Mining Weekly; [www.miningweekly.com/article/states-playerref-status-makes-independent-mining-regulation-essential-leon-2011-03-18](http://www.miningweekly.com/article/states-playerref-status-makes-independent-mining-regulation-essential-leon-2011-03-18)

proposal. Although the minister is not strictly obliged by the Minerals Commission's proposals, his discretion is limited by them.<sup>16</sup>

The creation of independent regulating agencies is an important part of the Organisation for Economic Cooperation and Development's (OECD) activities in drafting guidelines of quality of regulation and proposals.<sup>17</sup> According to the OECD the creation of those agencies must be considered in situations where it is necessary to maintain public trust, neutrality in the presence of state and private sector companies, and impartiality regarding decisions that have significant economic effects on companies.<sup>18</sup>

As far as the structure of the independent agencies is concerned, a council made up of numerous members ensures a higher level of independence. With the same aim in mind, the members should be appointed at the highest level of authority and remain relatively long-term (4–5 years or more). The procedure for dismissal of members is also important. Political disagreement with the authorities as a pretext must be excluded as much as possible. The quality of the agency's employees depends on the financial and human resources available as well as the approaches to securing them. In all respects, there is no single structure and approach for all countries since the establishments and administrative cultures differ from country to country.

The financing of the independent regulating agency may be from the state budget; however it may result in subtle pressure from the relevant state body. The financing may also come from charges paid by the industry being regulated and the tariffs and procedures may be approved by law, thus protecting the independence of the agency. Sometimes the financing is constituted by both the budget and the payments by the industry together. In terms of specialists, the main problem is the absence of highly qualified experts or the provision of competitive salaries for them.<sup>19</sup>

### 3.2.2. International Extractive Industries Transparency Initiative (EITI)

EITI is an international structure which sets a global transparency standard for the oil, gas and mining sectors. The overall aim of the structure is to allow natural resources to benefit everyone. As a result of good management the extraction of those resources may produce widespread revenues and reduction of poverty. However, if the management is weak, the extraction of resources may bring poverty, corruption and opposition.

The WB officially supported the creation of the structure and has assisted different countries in implementing the initiative by special measures, including providing technical and financial support through a special fund. Those countries which are considered "mineral-rich countries" are particularly advised to join the initiative. According to the IMF, those countries where the mean state revenues from extractive industries or the mean exports of those industries in the previous 3 years constitute at least 25% of the total, are considered to be mineral-rich.<sup>20</sup>

<sup>16</sup> International Mineral Regulatory Best Practice; Spatial Dimension; [www.spatialdimension.com/LinkClick.aspx?fileticket=Ta5%2F5jT9dus%3D&tabid=153](http://www.spatialdimension.com/LinkClick.aspx?fileticket=Ta5%2F5jT9dus%3D&tabid=153)

<sup>17</sup> Guiding Principles for Regulatory Quality and Performance; OECD; [www.oecd.org/document/38/0,3746,en\\_2649\\_37421\\_2753254\\_1\\_1\\_1\\_37421,00.html](http://www.oecd.org/document/38/0,3746,en_2649_37421_2753254_1_1_1_37421,00.html)

<sup>18</sup> Draft OECD Recommendation on Regulatory Policy and Governance; OECD; [www.oecd.org/dataoecd/49/43/48087250.pdf](http://www.oecd.org/dataoecd/49/43/48087250.pdf)

<sup>19</sup> Designing Independent and Accountable Regulatory Authorities for High Quality Regulation; OECD; [www.oecd.org/dataoecd/15/28/35028836.pdf](http://www.oecd.org/dataoecd/15/28/35028836.pdf)

<sup>20</sup> Implementing the Extractive Industries Transparency Initiative; World Bank; [siteresources.worldbank.org/INTOGMC/Resources/implementing\\_eiti\\_final.pdf](http://siteresources.worldbank.org/INTOGMC/Resources/implementing_eiti_final.pdf)

The EITI aims at strengthening management by improving the transparency and accountability of the extractive industries. The initiative checks and fully publishes all the payments by companies and all the governments' revenues from mining. The principles of the structure are adopted by the interested parties, supporters and implementers.

In addition to those already mentioned, these include:

- Directions for sustainable development adopted as a result of public understanding of state revenues and public debate,
- Financial transparency improves the investment environment,
- The accountability of the government before all citizens helps for correct management of incomes and expenditures,
- All interested sides participate: state bodies, companies, investors and multi-faceted, financial and non-governmental organisations.

The realisation of the transparency initiative must correspond to certain standards. All payments by companies and all government revenues must be regularly made public to a wide audience in an accessible, comprehensive and comprehensible manner. Payments and revenues are subject to credible and independent audit, applying international auditing standards. Payments and revenues will be compared by a credible, independent administrator and the administrator's opinion, including any disparities will be published. Civil society will actively participate in the design, supervision and evaluation of this process and contribute towards public debate.

EITI is a strong coordination between governments, companies, civil society groups, investors and international organisations. This is expressed in the relevant cooperation between the countries implementing the transparency initiative in addition to the EITI council members from governments, companies and civil society, at the international level. They are appointed during the structure's triennial international conference.

The structure has a well-designed, yet flexible methodology which allows a single, international standard to operate in different implementing countries. The EITI council and international secretariat is the guarantor of the methodology. However, the implementation itself is the obligation of individual countries. In essence the transparency initiative is an internationally designed standard, which

encourages the transparency of revenues locally. There are also rules confirming EITI methodologies which must be followed for the countries to be in complete compliance with the structure.<sup>21</sup>

◀◀ The International Extractive Industries Transparency Initiative (EITI) aims at strengthening management by improving the transparency and accountability of the extractive industries

### 3.2.3. International Council on Mining and Metals (ICMM)

ICMM is a company-level initiative which was created to improve sustainable development performance in the sector. At present it unites 21 companies and 31 national and regional mining associations and global commodities associations.

The organisation was created by numerous interested parties from a research initiative

<sup>21</sup> What is the EITI?; Extractive Industries Transparency Initiative; [eiti.org/eiti](http://eiti.org/eiti)

called the Mining, Minerals and Sustainable Development project, which examined the role of mining in a sustainable future. The results of that study recognised the industry's potential contribution, the main challenges and the agenda for changes. This became the backbone of the ICMM mission.

The companies of this council have publicly taken on the responsibility to improve their performance and present annual reports on their progress.

In order to create meaningful relationships, those companies engage with all interested parties: governments, international organisations, communities, indigenous peoples, civil society and academia. In particular, the activities of ICMM and the relationship it has with others is based on the following principles:

- Integrity of contacts with employees, communities, governments and others,
- Accountability in executing assumed obligations,
- Open, transparent and inclusive cooperation towards general challenges and opportunities.<sup>22</sup>

The ICMM also actively cooperates with external interested parties including the WB and EITI. As a result there is an exchange of experience and best practices and companies can understand which approaches work in practise.<sup>23</sup>

### 3.3 Environmental protection

The consideration of sustainable development is an important element in any socio- economic developmental strategy. The latter has a unique relation to mining, taking into account the extent of the effects on nature and the environment. In this respect, clear standards and rules which must be followed by the mining sector are extremely important. International practices towards this end include clear approaches.

#### 3.3.1. International environmental standards

Leading mining companies in the world apply Environmental Management Systems (EMS) specific to the mining sector, based on ISO 14001 standards.<sup>24</sup> EMS recognizes and classifies ecological characteristics and influences, including in unregulated directions. They also take into account unforeseen situations or uncharacteristic conditions, which may arise in the mine, encouraging preparation for unexpected situations.

In general the application of official (with ISO 14001 accreditation) or unofficial (unaccredited or self-declared) EMS in mining activities has real and valuable benefits. The application of these systems has positive results for improved environmental activity, guaranteed legal compliance and energy and material efficiency. Sound EMS helps a mining company recognise its obligations, which include more than just working in compliance with requirements.

Efficient EMS officially defines and applies the necessary structure, practice, procedures, processes and resources. In particular, the channels of communication, skills, knowledge and attitude are entirely improved. Sound EMS can assure the interested parties, the state regulatory bodies, environmental agencies and the public that the company will continue to satisfy the relevant demands of environmental regulations and is ready to improve all its environmental activities.

The application of the EMS allows the mining company to forecast the changing expectations of the public and also the changes in the environmental laws and regulations. The application of EMS

<sup>22</sup> About Us; International Council on Mining and Metals; [www.icmm.com/](http://www.icmm.com/)

<sup>23</sup> Mining, metal sector more transparent: international council; Mining Weekly; [www.miningweekly.com/article/dialogue-brings-progress-2011-03-24](http://www.miningweekly.com/article/dialogue-brings-progress-2011-03-24)

<sup>24</sup> ISO 14000 – Environmental Management; International Organization for Standardization; [www.iso.org/iso/iso\\_catalogue/management\\_and\\_leadership\\_standards/environmental\\_management.htm](http://www.iso.org/iso/iso_catalogue/management_and_leadership_standards/environmental_management.htm)

assumes certain expenses. The ratio between profits and expenses is directly linked to the size of the company or mine and their effects on the environment. The amount of EMS elements the company already has in its management is also an important factor. The following supplementary characteristic benefits of EMS can be pointed out:

- An EMS which corresponds to the elements of the ISO 14001 standard shows that the mining company applies a management system that corresponds to internationally accepted and quantifiable standards,
- An effective EMS reduces environmental risks and responsibilities. Documentation and procedures are improved. There are savings in environmental management costs,
- The EMS allows the company to set goals and measure progress using consistent methods,
- Effective EMS allows the company to not only apply sound environmental management but also prove its application.
- The results of continuing environmental improvement in the mine brings benefits, thus verifying that the application of EMS is productive,
- Company employees' awareness of environmental issues is raised. The spirit and activities of the staff are improved. Cooperation is increased as a result of employees from different departments working for a common cause,
- ISO 14001 registrations may become a virtual demand in international markets.<sup>25</sup>

In the environmental protection sphere, there are also company-level international cooperative initiatives. Amongst them is the International Council on Mining and Metals (ICMM), considered in the previous section. The work of the ICMM and its relationships with others in particular is based on several principles including respect between man and the environment and attention to the values of the host society.<sup>26</sup>

### 3.3.2. EU environmental practice

The EU is one of the world's leaders in mining best practices and legal regulations. The European Commission Directorate-General (ECDG) for Enterprise and Industry is responsible for policy in the industrial branches including mining, metals and minerals<sup>27</sup>. At the same time, The ECDG for the Environment is responsible for various other spheres, including the policy on mining wastes<sup>28</sup>.

The harmful effects of mining wastes can cause permanent environmental damage and social-economic consequences and be extremely difficult and expensive to regulate through rehabilitation measures. Therefore, these wastes should be dealt with properly, in order to secure the long-term stability of waste dumps, and to prevent or minimise contamination of water or soil as a result of the seepage of acid or alkaline drainage and heavy metals. To that end, the EU has drafted comprehensive legislation for the safe management of industrial wastes. The Best Available Techniques (BAT) reference document is part of that package for the management of tailings and waste rock in mining activities.

This document concerns operations relating to tailings and waste rock in mining which can potentially affect the environment. In particular those activities which can be considered examples of good practice are included. Techniques of mining and metal processing are touched on only in rel-

<sup>25</sup> Mining and ISO 14000; EnviroGulf Consulting; [www.envirogulf.com/mining\\_iso.html](http://www.envirogulf.com/mining_iso.html)

<sup>26</sup> About Us; International Council on Mining and Metals; [www.icmm.com/](http://www.icmm.com/)

<sup>27</sup> Mining, Metals and Minerals; European Commission; [ec.europa.eu/enterprise/sectors/metals-minerals/index\\_en.htm](http://ec.europa.eu/enterprise/sectors/metals-minerals/index_en.htm)

<sup>28</sup> Mining Waste; European Commission; [ec.europa.eu/environment/waste/mining/index.htm](http://ec.europa.eu/environment/waste/mining/index.htm)

evance to the management of tailings and waste rock. The aim is to raise awareness of such practices and promote their use in all types of activities in the sector.

The best techniques document has been drafted based on the exchange of information between the EU member states and the mining industry. It has been developed as an EC initiative and must also contribute to the implementation of the “The management of waste from extractive industries” directive. The latter requires measures based on the use of the BAT document.<sup>29</sup>

The BAT for management of tailing and waste-rock in mining activities document, irrespective of the volumes produced or the techniques used for processing the minerals (mechanical, chemical or hydrometallurgical), considers the following metals: aluminium, cadmium, chromium, copper, gold, iron, lead, manganese, mercury, nickel, silver, tin, tungsten, and zinc.

The following industrial minerals are also included: barytes, borates, feldspar (if recovered by flotation), fluor spar, kaolin (if recovered by flotation) limestone (if processed), phosphate, potash, strontium and talc (if recovered by flotation)

In the list of other minerals, coal is only included when it is processed and there are tailings produced. In general, this means that hard coal (or rock coal or black coal) is covered, whereas lignite (or brown coal), which is usually not processed, is not covered.<sup>30</sup>

### 3.4 Safety

Technical safety is also regulated by standards and rules. Traditionally, mining is a sector which includes activities full of risks and difficulties. For this reason, stipulation of clear standards and rules which correspond to mining activities are vital. International practice also includes clear approaches to this end.

#### 3.4.1. International safety standards

OHSAS is the International Occupational Health and Safety Management System. It comprises two parts, 18001 and 18002 and embraces a number of other publications. OHSAS 18001 is an Occupation Health and Safety Assessment Series for health and safety management systems. It is intended to help organizations to control occupational health and safety risks (OH&S). It was developed in response to widespread demand for a recognized standard with which companies could be certified and assessed.

OHSAS 18001 was created by a concerted effort from a number of the world’s leading bodies of national standards (including Great Britain, Ireland, Australia and South Africa), certification bodies, and specialist consultancies. A main driver for this initiative was to try to remove confusion in the workplace from the proliferation of certifiable OH&S specifications. It is worth noting that the certification bodies involved in its creation hold about 80% of the world market for management system certification.

The OHSAS specification is applicable to any organisation that wishes to establish an OH&S management system to eliminate or minimise risk to employees, and other interested parties who may be exposed to OH&S risks. The organisation can assure its compliance with its stated OH&S policy and demonstrate such conformance to others, while at the same time implementing, maintaining and continually improving its OH&S management system. It can determine for itself and declare compli-

<sup>29</sup> Mining Waste, BAT Reference Document; European Commission; [ec.europa.eu/environment/waste/mining/bat.htm](http://ec.europa.eu/environment/waste/mining/bat.htm)

<sup>30</sup> Management of Tailings and Waste-rock in Mining Activities; European Commission; [eippcb.jrc.ec.europa.eu/reference/mmr.html](http://eippcb.jrc.ec.europa.eu/reference/mmr.html)

ance with this OHSAS specification. It can seek certification/registration of its OH&S management system by an external organisation.<sup>31</sup>

OHSAS 1800 has been developed in such a way that it can be compatible with the standards of ISO 9001 (quality) and ISO 14001 (environment) management systems, to simplify the integration of the environmental and occupational health and safety management systems of companies. The OHSAS specification gives requirements for an occupational health and safety management system, to enable an organisation to control its OH&S risks and improve its performance. It does not state specific OH&S performance criteria, nor does it give detailed specifications for the design of a management system<sup>32</sup>.

In the technical safety sphere, there are also company-level international cooperation initiatives. One of them is the International Council on Mining and Metals (ICMM), considered in the previous section. In particular, the work of the ICMM and its relationships with others are based on several principles, including the safety, health and well-being of employees, contractors, host communities and those using materials<sup>33</sup>.

### 3.4.2. EU safety practices

The ECDG for Employment, Social Affairs and Inclusion is responsible for policies on issues of employment, including health and security in the work place<sup>34</sup>. Health and Safety at work is one of the most important fields of the European Union social policy. A solid corpus of legislation has been adopted covering the maximum number of risks with the minimum number of regulations.

European efforts are not limited to legislation. The Commission has widened the scope of its activities in cooperation with the European Agency for Health and Safety at Work and the European Foundation for the Improvement of Living and Working Conditions, to promote information, guidance and encouragement for a healthy working environment.

Moreover, the Community strategy of 2007–2012 aims at reaching stable reduction in occupational accidents and illnesses by means of several measures in the following main areas:

- Improving and simplifying existing legislation and enhancing its implementation in practice through non-binding instruments such as exchange of good practices, awareness-raising campaigns and better information and training,
- Defining and implementing national strategies adjusted to the specific context of each Member State. These strategies should target the sectors and companies most affected and fix national targets for reducing occupational accidents and illness,
- Mainstreaming of health and safety at work in other national and European policy areas (education, public health, research) and finding new synergies,
- Better identifying and assessing potential new risks through more research, exchange of knowledge and practical application of results.<sup>35</sup>

Referring to the legislation we should note that the EU classifies the pivotal issues affecting health and safety in the workplace according to activities in the following areas: Workplaces, Work Equip-

<sup>31</sup> The Health and Safety and OHSAS Guide; *OHSAS 18001 Occupational Health and Safety Zone*, [www.ohsas-18001-occupational-health-and-safety.com/index.htm](http://www.ohsas-18001-occupational-health-and-safety.com/index.htm)

<sup>32</sup> OHSAS 18001; *The BS8800 OHSAS and OSHA Health and Safety Management Group*, [www.osha-bs8800-ohsas-18001-health-and-safety.com/ohsas-18001.htm](http://www.osha-bs8800-ohsas-18001-health-and-safety.com/ohsas-18001.htm)

<sup>33</sup> About Us; *International Council on Mining and Metals*, [www.icmm.com/](http://www.icmm.com/)

<sup>34</sup> Health and Safety at Work; *European Commission*, [ec.europa.eu/social/main.jsp?catId=148&langId=en](http://ec.europa.eu/social/main.jsp?catId=148&langId=en)

<sup>35</sup> Health and Safety at Work: EU Strategy 2007–2012; *European Commission*, [ec.europa.eu/social/main.jsp?catId=151&langId=en](http://ec.europa.eu/social/main.jsp?catId=151&langId=en)



ment, Categories of Workers, Physical Agents, Chemical Agents, Carcinogenic Agents, Asbestos, Biological Agents, Psychosocial Factors, Ergonomics, Occupational Diseases, and International Cooperation.<sup>36</sup>

In particular, the minimal requirements for the main principles of prevention and protection of health and safety of workers that are developed according to the work location are laid down in the 1989 Framework Directive (89/391/EEC). This directive requires that health and safety issues are especially taken into account when planning and organising projects. It also requires that the chain of responsibility be confirmed and include all those involved, in order to reduce possible risks. Also employers are obliged to inform, consult, and ensure the participation of the workers concerning the issues raised in the Directive.

Supplementary requirements concerning the mining sector are set in three separate directives:

- Extractive industries using boreholes,
- Surface and underground extractive industries,
- Equipment and protective systems used in potentially explosive atmospheres.

An individual Directive concerning minimum requirements for improving the safety and health protection of workers in the surface and underground extractive industries was approved (92/104/EEC). This Directive concerns all industries which are engaged in surface or underground extraction or prospecting activities. In particular it requires for there to be responsible supervision during operations; work involving special risks is only undertaken by competent workers; and safety instructions are comprehensible to all the workers concerned. Employers are obliged to assess risks and draw up a health and safety document.<sup>37</sup>

It is also noteworthy that the national expert committees of the Member States play an important role in the process of developing EU legislation concerning health and safety in the workplace. Meetings of national specialists help bring together valuable knowledge, expertise and advice in the process of preparing and implementing EU decisions.

They are also essential in the ongoing process of evaluating and updating regulatory measures and technical standards as a function of industrial evolution and operating practices. While contributing to the monitoring and enforcement of the legislation, they also help ensure that both sides of industry are fully consulted in the process.

At present the EU committees working in that area include the Advisory Committee on Health and Safety at Work, the Scientific Committee on Occupational Exposure Limits and the Senior Labour Inspectors Committee.<sup>38</sup>

### 3.5 Protection of rights and legal interests

In essence the provision of permits for mining projects is a result of negotiations between the extractors and the state. The latter represents the people's rights and legal interest and is their defender; the people's position in these negotiations is formed by the balance of the interests presented.

On the one hand, international competition for private investments obliges countries to set legislation stipulating the most attractive conditions for mining. This includes competitive fiscal and

<sup>36</sup> Health and Safety at Work: Areas of Activity; European Commission; [ec.europa.eu/social/main.jsp?catId=716&langId=en](http://ec.europa.eu/social/main.jsp?catId=716&langId=en)

<sup>37</sup> Health and Safety at Work: Areas of Activity – Work Places; European Commission; [ec.europa.eu/social/main.jsp?catId=716&langId=en&intPageId=219](http://ec.europa.eu/social/main.jsp?catId=716&langId=en&intPageId=219)

<sup>38</sup> Health and Safety at Work: Committees; European Commission; [ec.europa.eu/social/main.jsp?catId=153&langId=en](http://ec.europa.eu/social/main.jsp?catId=153&langId=en)

taxation terms.<sup>39</sup> On the other hand, there is the necessity to obtain the maximum social-economic benefits through the exploitation of useful minerals belonging to the public.

### 3.5.1. Compensation

It is worth pointing out that as far as financial compensation is concerned, different types of royalties are applied in the world including those based on units<sup>40</sup>, on value<sup>41</sup>, on profit and income<sup>42</sup>, and on hybrid systems<sup>43</sup>. Moreover, in the same situation, with the same total collectable sum, different types of royalties assume different rates.

In particular, according to the sales value, royalty rates fluctuate from the lowest, zero (Zimbabwe) to the highest (Ghana, in the case of super profit). As a rule, higher royalties are applied for higher value minerals and larger mines and in cases of higher production and higher profit. As far as the zero or low royalties of some countries is concerned, they are usually aimed at encouraging foreign investment. However, the experience of Zimbabwe for example has shown that the level of investments is linked more to the domestic political situation, the quality of the general business environment and the level of corruption<sup>44</sup>.

### 3.5.2. International indices of responsibility

While the management of revenues obtained from royalties for the development of communities and other social projects is an issue of state strategy and public debate, leading mining companies are promoting those projects on their own initiative. In particular, those companies apply social responsibility management systems based on the ISO 26000 standard.<sup>45</sup> Through these, companies better recognise the expectation of the stakeholders and are in better relations with them<sup>46</sup>.

In general, there are no international standards to evaluate the provision of support of the mining companies to the economic development of the communities involved. The nature and volume of company support differs greatly. It includes support for local humanitarian or sustainable development projects and also support for local capacity building by training and employing the local workforce. Companies allocate certain means for community support projects which can constitute up to one percent of their annual revenue before tax. At the level of international cooperation of companies, the ICMM encourages the support provided by companies for social, economic and institutional development in communities.<sup>47</sup>

The ICMM offers and implements community development projects. The aim of these projects is to secure outcomes corresponding to the needs of the communities, the benefits of which will continue after the closure of the mines. In order to achieve this, the ICMM has developed a practical

<sup>39</sup> International Mineral Regulatory Best Practice; Spatial Dimension; [www.spatialdimension.com/LinkClick.aspx?fileticket=Ta5%2F5jT9dus%3D&tabid=153](http://www.spatialdimension.com/LinkClick.aspx?fileticket=Ta5%2F5jT9dus%3D&tabid=153)

<sup>40</sup> Weight, volume etc: Is advantageous to governments.

<sup>41</sup> *ad valorem*: Is advantageous to governments.

<sup>42</sup> Is advantageous to investors.

<sup>43</sup> For example, the lowest price limit is applied in the case of low incomes,

<sup>44</sup> Mining Royalties; World Bank; [siteresources.worldbank.org/INTOGMC/Resources/336099-1156955107170/miningroyaltiespublication.pdf](http://siteresources.worldbank.org/INTOGMC/Resources/336099-1156955107170/miningroyaltiespublication.pdf)

<sup>45</sup> ISO 26000 – Social Responsibility; International Organization for Standardization; [www.iso.org/iso/iso\\_catalogue/management\\_standards/social\\_responsibility.htm](http://www.iso.org/iso/iso_catalogue/management_standards/social_responsibility.htm)

<sup>46</sup> Setting the Standard on Social Responsibility; Mining, People and the Environment; [www.mpe-magazine.com/reports/industry-guidelines-setting-the-standard-on-social-responsibility](http://www.mpe-magazine.com/reports/industry-guidelines-setting-the-standard-on-social-responsibility)

<sup>47</sup> Company Codes of Conduct and International Standards: An Analytical Comparison; World Bank; [siteresources.worldbank.org/INTPSD/Resources/Angola/Angola\\_CompanyCodesofConduct.pdf](http://siteresources.worldbank.org/INTPSD/Resources/Angola/Angola_CompanyCodesofConduct.pdf)

guideline together with the WB which can be used by companies, communities, governments and NGOs.<sup>48</sup>

### 3.6 Conclusions

In Armenia, the discipline and responsibility of the growing mining sector is considered important both by the complexity of related issues and their volumes. As has been pointed out, the general problems in the sector are connected to the issues of corruption risks in the state regulatory processes, the damage caused to the environment, technical hazards, and also insufficient compensation for labor.

In order to reduce corruption risks, an independent regulatory body can be created in Armenia which will have a council of members who have been appointed by the National Assembly or the President. That body will be authorized to consider the prospective projects and mining plans, make projections regarding conclusions of the Ministries of Nature Protection and Emergency Situations, and present its recommendations to the Ministry of Energy and Natural Resources for the provision of relevant permits. In the case of a contrary decision being given, the ministry must present its justification. This will counterbalance the exclusive decision-making authority of the three ministries. The approaches to provision of financial and human resources will be worked out after supplementary studies.

According to its export indices of the past few years, Armenia is a mineral-rich country and in order to ensure international standards of transparency and accountability in the sector, it must become a member of the International Exporters Transparency Initiative. By satisfying the requirements of that structure it will secure the publishing of the payments of companies and the publishing of related state revenues. As a result of the involvement of all stakeholders and public debate, it will also have the opportunity to choose the courses for sustainable development. As a result of the realization of the initiative, WB financial and technical assistance can be anticipated.

Armenia can also find supplementary ways to encourage company integrity, accountability and cooperation in relationships between all stakeholders, according to the best practice standards devised by the ICMM. Throughout all phases of activities in the sector, the fulfillment of ICMM standards can be secured by all possible means, ranging from negotiation to obligation.

Within the framework of the state's EU integration policy, the approval of the localization of international standards and their technical regulations, in parallel with the approval of the localization of the entire practice of EU experience and legislative initiatives, can guide Armenia in environmental and technical security issues.

From the environmental point of view, Armenia can develop standards based on the international ISO 14001 and adopt technical



The general problems in the sector are connected to the issues of corruption, the damage caused to the environment, technical hazards, and also insufficient compensation for labour

<sup>48</sup> Projects: Community Development; *International Council on Mining and Metals*; [www.icmm.com/page/236/community-development](http://www.icmm.com/page/236/community-development)

regulations which, in the case of compliance by the companies, will have results equivalent to those achieved by leading international companies in environmental management. The ICMM standards concerning the environment can also be applied. As far as the EU is concerned, the waste management legislation can be discussed in particular, and the “Best Available Techniques” document which describes clear activities for the tailings of different types of mines can be adopted.

From the aspect of technical security, Armenia can develop standards based on OHSAS 18001 and develop technical regulations which will result, in the case of compliance by the companies, in similar OH&S management systems as they are applied by leading international companies. The ICMM security standards can also be applied. The EU can discuss the OH&S legislation and strategy, and can approve the development, assessment, up-dating, supervision and implementation procedures of the legislation by committees of experts.

It must be noted that in Armenia any company profit before tax must constitute 64% of its income without VAT, in order for the royalty rate to equal to the international high of 12%, which is highly unlikely in practice<sup>49</sup>. The significant part of the income obtained from the royalty must be allocated to the social development projects in the communities. Moreover, for further social assistance, compliance by the companies with ISO 26000 may be secured by means of negotiation to obligation by the relevant regulation. In order to assist the aim of company projects, the ICMM’s practical guideline for community development can be used as a foundational starting point.<sup>50</sup>

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<sup>49</sup>  $R=4+ [P/(Tx8)] \times 100 = 4 + [0,64/8] \times 100 = 4+8=12$

<sup>50</sup> Author: Mher Tsaturyan, independent consultant, Master of International Law and Economics, has worked in state management, research, international and advisory establishments on legal-economic issues in business and development.

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*education*

# The Social Protection of Teachers in the General Education System of the Republic of Armenia

## Introduction

The social security of a society is a complex and multi-layered phenomenon in political life. It entered the political arena together with perceptions about social rights and directly relates to giving meaning to the latter. Social security serves as the foundation of a modern social state and 19<sup>th</sup> century social ideologies were built around it.

In the 1990s, the shaping of the newly established political regime in the Republic of Armenia exacerbated the issues of the social protection of society. The reforms aimed at liberalisation of political, social and other sectors concentrated mostly on forming or transforming institutions and structures. Frequently, the interests of individuals or separate social strata were ignored and social rights were infringed upon in this process.

In these conditions, education occupies a special position. On the one hand it is considered an economic field by many researchers and management experts and, as is the case for all other such sectors, must be liberalised where the functioning of market mechanisms, under fair and advantageous conditions, must be viewed as a guarantee of the sector's development. On the other hand, education is aimed at educating citizens of the nation and for that reason it carries traces of a state monopoly that are manifested in the formulation of united objectives, principles and united educational criteria. This is true in particular for public education. In conditions of a state monopoly, even if only partial, the provision of conditions for fair competition alone is not sufficient to ensure development of the sector. The partial state monopoly of the sector creates conditions both for targeted guidance of development and for the necessity of protection of teachers' interests.

Because public education in particular should be under the auspices of the state, we have placed importance on the issues of social security of pedagogical workers in the RA public education sector.

Our intent is to evaluate the current issues of the social security of teachers in the RA public education sector and to reveal the more obvious infringements of their social rights. For this reason we are considering the overall characteristic of the RA general education system and the definition of the concept of social security, and discussing the conditions of financial security, pension and leisure for teachers, and the main features of the personnel management system.

We are making the evaluation based on analysis of RA education legislature.

## Chapter 1. General description of the status of teachers and the RA general education system

### Introduction

As a social, political and cultural phenomenon, public education has deep roots in Armenian reality. Throughout history, educational policy has frequently been used as a tool to resolve state and national identity issues. It has also served to shape value systems and to create and develop an ideological foundation, contributing to progress in other public sectors.

Historically, the attention of state and church figures to education has shaped respect towards the institute of the teacher. Although history also retains memories of losses and devaluation, it is possible to speak, generally within a historical context, about the high reputation of teachers, and their active social roles.

The foundation of the modern education system was laid during the First Republic in 1918–1920. The system continued to develop during the Soviet period.

During the Soviet period, great emphasis was placed on public education. Under conditions of a centralised state administration and in the context of communist ideology, education was predominantly considered a means for creating an ideologically established citizen and a harmoniously developed individual. Therefore, frequently ideas of economic expediency and profitability were left in the background and a teacher's profession became honourable and profitable from a social-economic point of view.

In 1991, newly independent Armenia was faced with the necessity of transforming the education system and developing a new education policy. Two main provisions were accepted as a starting point:

1. The RA education system must be national, correspond to national value systems and be aimed at Armenian nation-building,
2. The RA education system must be “legible” to the international community and correspond to the new social-economic conditions.

These two provisions have guided the structural and substantive reforms that have taken place in the education sector over the last 20 years. This unwittingly has brought about a change in the social status and professional (self) awareness of the teacher.

It is possible to separate certain decisive years shaping the main phases of the reforms implemented during the first decade of the end of the twentieth and the first decade of the twenty-first centuries. It is possible to present a brief chronology of these reforms, thus:

**1991-1995:** Creation of the foundation of a national school, first-priority reforms,

**1995-1998:** Establishment of the state administrative system (adoption of the Constitution and a number of laws)

**1998:** Passing of the RA law “On Education”

**2001-2005:** Drafting and adoption of the law “On the approval of the state program for educational development for 2001-2005”

**2003-2009:** Implementation of the first project, “Quality and Compliance of Education” with World Bank assistance

**2011-2015:** Adoption of the law “On the approval of the RA state program for educational development for 2011-2015”

The education system continues to undergo significant changes. The description presented below reflects the present, static phase of the system.



## 1.1 General description of the RA general education system

### a. The description of the structure of the RA general education system

The functioning of the general education system is regulated by RA laws on “Education,” “General Education,” “Law on Education of Persons with Special Education Needs,” “Pre-School Education,” “State Non-Commercial Organisations,” and other related laws and legal Acts.

According to Article 10 of the “Law on Education,” education is carried out through basic and supplementary programs of pre-school, elementary, basic, and secondary education.

The activity of the pre-school education system is regulated by the RA “Law on Pre-School Education.” The “Law on General Education” defines the state policy principles, organisational-legal and financial-economic bases of the RA State education system and regulates legal relations between physical and legal entities participating in the process of general education, and secures the bases of the right to education as stipulated by the RA Constitution, for compulsory basic general education and free secondary education.

The pre-school curriculum is aimed at securing a healthy childhood preparation for elementary education. It is implemented from early infancy to 6 years of age. Pre-school education is the initial constituent part of the RA continuing education system.<sup>1</sup>

The remaining general education programs are classified in sequence according to their level, on the principle of continuity.

The secondary education program, being the third level of education, includes the elementary and basic educational curricula, the second level includes the basic, and the first includes the elementary education curriculum.<sup>2</sup>

Secondary education covers 12 years beginning at the age of 6. The elementary school curriculum is completed in four years and the basic education curriculum is completed in the subsequent five years. According to the law, this basic nine years of education is compulsory. The final three years are allocated to fully mastering the secondary education curriculum.<sup>3</sup>

The general education curricula correspond to the types of general education institutes (EI).

The “RA Pre-school Educational Institute” community non-commercial organisation (CNCO) sample charter approved by the RA Government minutes No 54 of 26.12.2006 stipulates the following types of pre-school EIs:

1. Kindergarten
2. Special kindergarten
3. Resort kindergarten
4. Children’s centre
5. Kindergarten complex
6. Educational complex
7. Children’s home for up to 6 year olds

Special and health kindergartens are kindergartens that work with special pedagogic and health programs. A children’s centre also realises advisory services. A comprehensive kindergarten includes and unites all the previous types. Besides a pre-school curriculum, a comprehensive complex also includes other establishments realising general education programs.

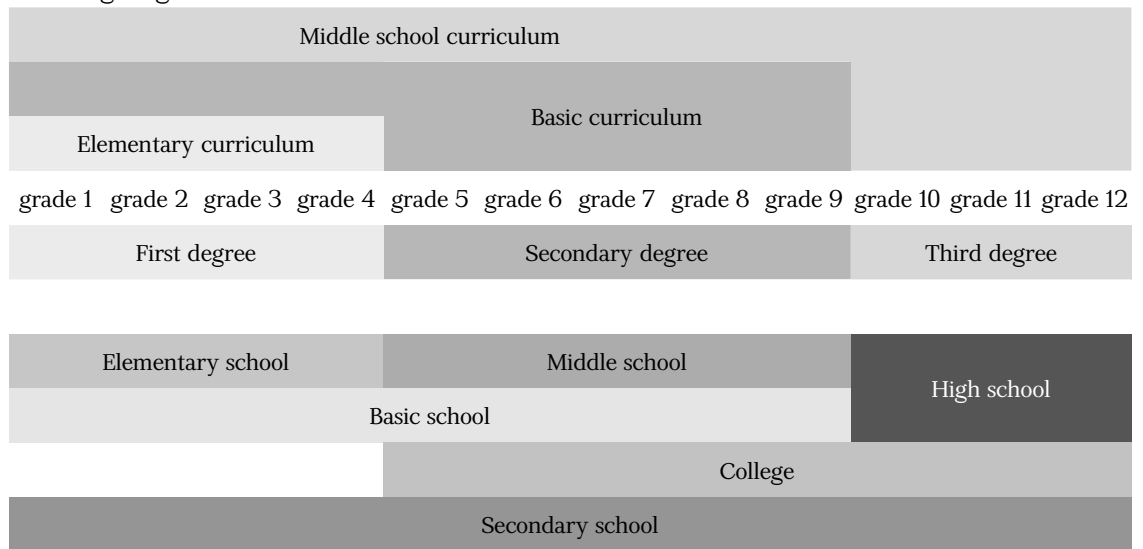
The secondary education curriculum can be realized in either secondary or high schools, and by colleges. The basic educational curriculum is realised in secondary, middle schools and colleges and

<sup>1</sup> See: RA law on “Pre-School Education”, Article 7,9

<sup>2</sup> See: RA law on “Education”, Article 10.2 and RA law on “General Education”, Article 7.3 and 7.7

<sup>3</sup> RA law on “General Education” Article 7.8

the elementary education curriculum is implemented in secondary or elementary schools. Thus, for the three levels of curriculum there are six EIs stipulated. Their correlations are presented in the following diagram:



Currently, with World Bank assistance, implementation of month-long pre-school projects (alternative micro-projects) for 5-6 year olds (senior groups) in general education EIs are taking place within the framework of the “Education Quality and Compliance” project.

In accordance with the current law, each educational program (except pre-school) is realised in three variants: general, specialised and special. Specialised general education basic curricula are realised on the basis of the general: sport, trades, or any branch of science. Special general curricula are implemented for those needing special conditions for education and also for those groups of learners displaying anti-social behaviour. The RA Ministry of Education, as the authorised state educational regulatory body, can specify other learning timetables<sup>4</sup> for specialised general education, for children of exceptional intelligence, children needing special educational conditions and alternative education curricula.

The general education EIs are divided into three types, corresponding to these three alternatives: general education school, specialised general education school, and special general education school.<sup>5</sup>

Seven kinds of special types of EIs function in the RA, according to RA government decision No. 381-N of 24.03.2005:

1. For children with hearing impairments
2. For children with visual impairments
3. For children with severe speech impairments
4. For children with physical disorders
5. For children with mental retardation
6. For children with anti-social behaviour
7. For children with extraordinary abilities (gifted)

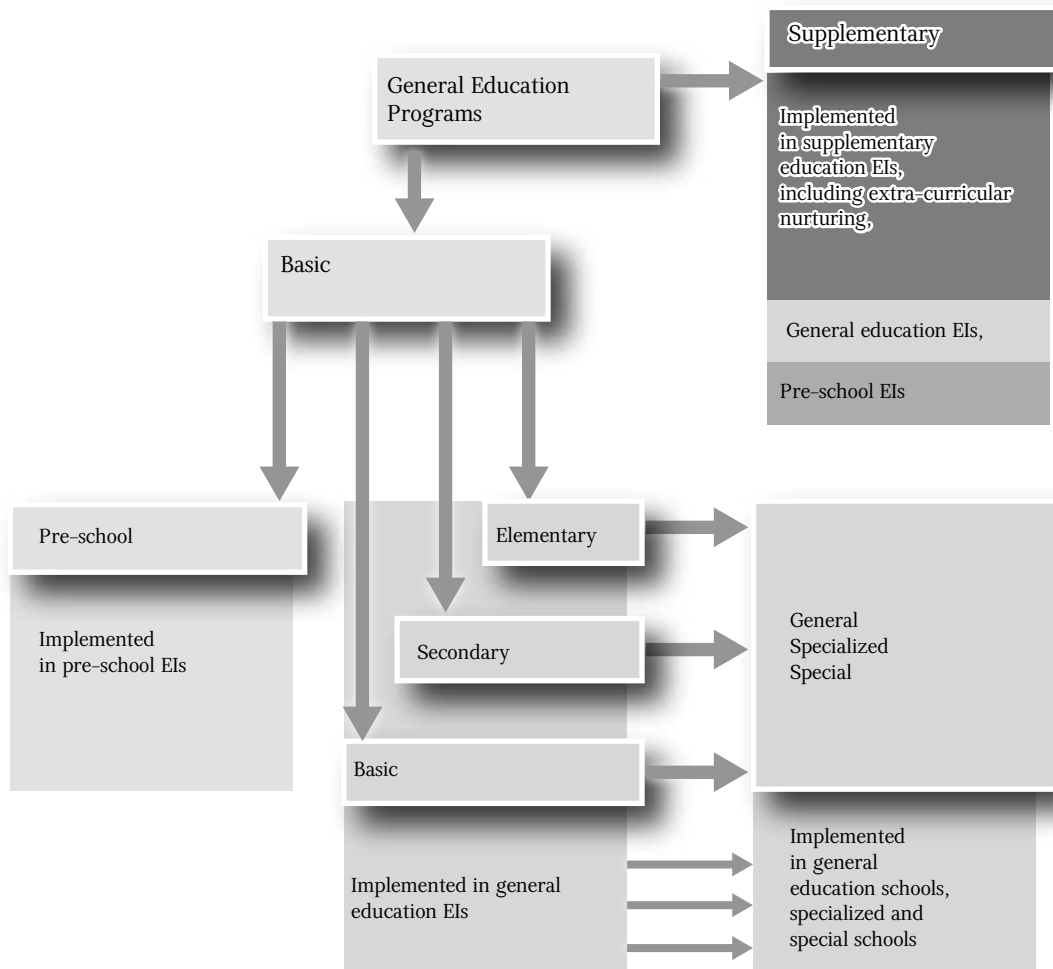
Elementary (professional), vocational and middle level education system (technical colleges, colleges) can also realise general curricula if the specialised education curriculum is being realised on

<sup>4</sup> See: RA law on “Education”, Article 10 and RA law on “General Education”, Article 3.9, 3.10 and 7.9

<sup>5</sup> RA law on “General Education” Article 3

the basis of grade 9 basic education. In this case, the training program has two education constituents: general education (corresponding to secondary education) and specialised education.

Besides the basic programs, all levels of general education can also implement supplementary training programs, outside of the main curricula, with the aim of satisfying the preferred educational demands of learners. Supplementary general education programs are implemented by general education EIs or other organisations (including extra-curricular educational-nurturing establishments<sup>6</sup>) by mutual agreement between the establishment and parents of the learners (legal representatives). Overall, the general education program in RA can be presented by the following diagram:



According to data on the 2011–2012 academic year, a total of 813 pre-school EIs are operating in the RA, of which 125 are operating in general education schools and five in education complexes.

A total of 69.807 children are included in the pre-school education system, of which 3.576 are in general education schools.

According to data on the 2011–2012 academic year, 1441 general education EIs are functioning, of which 14 are specialised schools and 27, special. There are 13 elementary schools in the republic,

<sup>6</sup> Extra-curricular educational-nurturing establishments implement extra-curricular education. They include youth creative and aesthetic centres; music, painting and art schools; clubs; young patriots; technicians; nature lovers and tourist stations; sports schools; marz schools; health camps and other organisations.

495 basic, 118 high schools, and 18 colleges. The largest number is the secondary schools. There are 797 of them. At present no middle schools are operating in Armenia.

384.439 pupils frequent general education EIs, of which 3711 frequent specialised schools and 2649, special<sup>7</sup>. Fifty four extra-curricular education-nurturing establishments<sup>8</sup> operate in the extra-curricular education sector.

### **b. The management of the RA general education system**

The general education EIs are organisations having the status of legal entities. State, community and non-governmental EIs function according to the form of ownership. State and community EIs have a non-profit organisational-legal structure and are subject to the requirements of the RA law on “State Non-Commercial Organisations.” The sample charter of both state and community property EIs is approved by the RA government. Non-profit EIs may be in any preferred organisational-legal form.

The RA laws on “Education,” “Pre-school education and general education” are also the legal bases for the management of the general education EIs.

Currently 763 state and 50 non-state pre-school EIs are functioning; 1402 state and 48 non-state general EIs (one is a specialised school). Of the non-state EIs, four are elementary, two are basic, and seven are high schools; four colleges and 31 secondary schools<sup>9</sup> are operating.

The founder of the pre-school state EI is the local self-governing body (LSGB) represented by the head of the community and, in state general education EIs, the Republic of Armenia, represented by the RA government.

**The external management of the state pre-school EIs** is realised by the RA Ministry of Education and Science and the LSGBs. The RA Ministry of Education and Science is authorised to

develop and implement the education policy; that includes the system’s developmental perspectives, organises training of personnel, approves the list of educational materials, and defines the tariff-qualification descriptions, and so on. The general management of the establishment is realised by the head of the community.<sup>10</sup>

The pre-school state EIs operate under the control of the RA Ministry of Education and Science or communities.

Currently 633 community and five departmental establishments operate within complexes; 125 establishments operate with alternative micro-projects.

**The internal management of the state pre-school EI** is realised by the headmaster.



State and community educational institutions have a non-profit organizational-legal structure and are subject to the requirements of the RA law of “State Non-Commercial Organisations”

<sup>7</sup> See: “General education educational establishments” [www.armedu.am/arm/official.php?sec=org&id=377](http://www.armedu.am/arm/official.php?sec=org&id=377)

<sup>8</sup> 2010 RA Government decision No. 846-N on approving “RA state mid-term expenditure program”, Sub-clause 7.1.1

<sup>9</sup> See: “General education educational establishments” [www.armedu.am/arm/official.php?sec=org&id=377](http://www.armedu.am/arm/official.php?sec=org&id=377)

<sup>10</sup> See: RA law on “Pre-school education” Chapter 4

The establishment may have advisory bodies, such as teachers', parents', guardians,' and other councils.

**The external management of the state general education EIs** is implemented by the RA government, RA Ministry of Education and Science, and regional management bodies (marz administrations and Yerevan municipality).

The re-organisation, dissolution, and establishment of branches of general education EIs is realised by the RA government. On the whole, the RA Ministry of Education and Science realises the developmental and supervisory functions of the overall education policy; it develops and approves the sample educational curricula, and secures the development, evaluation and publishing by subject of syllabuses, text books and other educational materials.

All state general education EIs operate under the control of RA Ministry of Education and Science or marz administration (or Yerevan municipality). General education elementary, secondary and basic schools operate under the control of the marz administration (or Yerevan municipality). High schools operate under the control of the RA Ministry of Education and Science. Currently 118 high schools operate under the control of the RA Ministry of Education and Science. The provision of overall management and normal functioning is realised by the RA Ministry of Education and Science according to the relevant educational policy being conducted by it.

The marz administrations (Yerevan municipality) secure the implementation of the educational policy and the supervision of the implementation by the EIs operating under its control.

The general management powers are defined in Article 31 of the RA law on "General Education" and Article 46 of the 25.07.2002 RA Government decision No. 1392, approving the sample charter of RA state general education EIs.

We present the competencies of the RA Ministry of Education and Science (towards the establishments under its control) and the marz administrations (Yerevan municipality):

1. Signing an employment contract with the headmaster, the premature annulment of the headmaster's powers in cases, and according to procedure, stipulated by the RA legislature.
2. Approval of the Charter of the general education school and changes made to it.
3. Approval of the staff and tariff lists, the annual expenditure estimate, and the budget financing for the following year, as presented by the headmaster.
4. Participation in the forming of the council, and the premature annulment (recall) of the powers of the council members proposed by it.
5. Within the limits of its powers, the termination or annulment of decisions, commands, orders, instructions, and arrangements made by general education school management bodies, the council and headmaster, which contradict the requirements of the RA legislation and its Charter.
6. Appointment of the general education school dissolution committee and approval of the liquidation balance sheet.
7. Supervision of the utilisation and protection of state assets allocated to the general education school and consenting to the leasing of the property in the case of the founders' decision or circumstances foreseen by the Charter.
8. Giving consent for the execution of major transactions of liquidation and/or acquisition of property etc.

**The internal management of the state general education EIs is realised** by the council and headmaster of the establishment within the framework of the powers of EIs, as foreseen by the RA law on "Education." The general education school may also have advisory bodies such as teachers', parents', pupils' and trustees' councils.

The council is the collegial governing body which is provided for by Article 10 of the RA law on “General Education.” It is the legislative body of the general education school. The principles of the formation of the council are stipulated in the “RA state general education academic establishment” SNCO sample Charter and the procedure is approved by the RA Ministry of Education and Science.

Ministry, marz administration, community, and also pedagogic and parents’ representatives are included in the structure of the council. In effect, the latter requirements make the existence of parents’ and pedagogic advisory bodies compulsory.

Council:

1. Chooses the headmaster in circumstances and by procedures set by legislation.
2. Approves the management structure of the academic institute and the internal disciplinary rules.
3. Approves the EI’s development program.
4. Discusses and approves the staffing and tariff lists.
5. Discusses the estimate of the EI’s annual expenditure.
6. Discusses the financial-economic and educational-nurturing activity reports.
7. Decides to participate in external evaluations and discusses the results of the internal and external evaluations.
8. Supervises the execution process of the EI’s development program.
9. Defines the main directions, etc. of the disposition of the EI’s budget, according to the procedure set by the founder.

The headmaster is the executive body of the general education school and implements the ongoing management of the establishment. He cannot be a member of the council and participates in the meetings with only a consultative voice.

As an official, several formal and substantive requirements are presented to the headmaster. He must be a citizen of the RA, have higher education and have at least seven years overall experience in the pedagogical or educational management sector over the previous 10 years. Prior to applying for the position of headmaster, his knowledge and abilities must be confirmed by certification. Certification is given as a result of an exam in which the applicant’s knowledge and abilities in educational and allied legislation, and pedagogical, psychological, financial and economic activity and other spheres, are evaluated. Certificates are valid for five years. The individual satisfying the above-mentioned requirements must be chosen by the council<sup>11</sup> as a result of an interview and discussion of the development program designed by him for the establishment. The RA Ministry of Education and Science or marz administration (Yerevan municipality) signs a five-year employment contract with the headmaster according to the established procedure. The director holds his office until the termination of his powers under the contract, regardless of the expiry of his certificate.

Such a complex process for the appointing of a director is aimed, in conditions of de-centralisation of external management, at the strengthening of internal management through the use of mechanisms ensuring knowledge and skills in professional and educational management.

### **c. The financing of the RA general education system**

The financial activity of general education EIs is stipulated by their organisational-legal form and is defined by the same RA laws that define the management system.

The financing system of public general education EIs is stipulated by the organisational-legal form chosen by the founder and is defined by the Charter of the establishment. At the same time, according to the law, the financial criteria used by them cannot be lower than the criteria set by the state for similar state establishments.

<sup>11</sup> The selection is made according to the procedure approved by RA government decision no.319-N on 04.03.2010 for selecting a director for state general education EI.

In the case of state EIs, the financing system is conditioned by their status as state or community EIs. The financing of state non-commercial organisations is realised through the RA state budget and that of the community NCOs, through the community budget. The RA laws also provide supplementary non-state financing sources such as investments by legal and physical entities, different forms of paid services and other sources not prohibited by the legislation.

The financing of general education establishments from both state and community budgets is realised, on a per student basis, according to the criteria stipulated by the government. The financial criteria are differentiated for pre-school

EIs, basic and high schools, schools in high-mountainous and mountainous communities and for schools that are the only one in the settlement and which have up to 400 pupils. According to the currently functioning financing formula<sup>12</sup> the total sum allocated to one pupil in general education EIs comes from the product of the annual sum for one pupil and the number of pupils plus the minimum sum stipulated for the maintenance of the establishment. The sum calculated and provided to establishments by this given financing mechanism is completely directed towards ongoing costs.

This given mechanism is supplemented by project financing. It is reflected in the RA state budget “Support projects allocated to education” group. Project financing is targeted to: 1) learners, teachers and assistance to educational establishments, 2) republican events (e.g. Olympiads), 3) fundamental renovation and construction of educational establishments, 4) developmental projects.<sup>13</sup>

According to the RA law on “Local self-governing bodies,” the financing of pre-school EIs is considered a separate, compulsory power of the LSGB. The financial means are directed towards wages, food, goods, and economic and communal expenses. Sums for renovating (reconstructing) buildings are stipulated on a separate line.

With the objective of implementing the ongoing reforms within the framework of the “Educational quality and compliance” project, funding is also realised from the RA state budget. It is planned to provide 156669.2 thousand drams from the 2012 state budget to pre-school education.

The community head and other state bodies stipulated by the legislation supervise the financial activity of the pre-school EI, and the supervision of utilisation and protection of property.

The majority (about 85%) of the sums provided to education from the state budget is directed to general education.<sup>14</sup> Developmental projects and financial obligations assumed by RA legislation and other projects are found in the project financing section.

According to Article 6, clause 4 of the RA law on “Education,” the state provides pupils in elementary classes with free textbooks (except for foreign language and music textbooks) and, for children from socially vulnerable families, textbooks for the elementary general education syllabus. The lines “Provision of textbooks and educational literature for elementary school pupils” and “Compensation



The financing of general education establishments from both state and community budgets is realised, on a per student basis, according to the criteria stipulated by the government

<sup>12</sup> See: RA Minister of finance 2010 No. 851- N and RA Minister of Education and Science 2010 No. 1730 -N, joint order

<sup>13</sup> See: RA law on “the approval of the state program for educational development, 2001-2005”

<sup>14</sup> See: RA law on “the approval of the state program for educational development, 2001-2005”

for leasing of textbooks by children of socially vulnerable families” are set in the RA state budget to realise these requirements.

The processes for training, attestation and the conferring of categories to teachers are provided in the RA law on “general education,” which presumes the provision of expenses for attestation and bonuses for those teachers who have received categories

According to Article 35, sub-clause 6, in the RA law on “General education” supplementary wages are set for pedagogic workers in state EIs in border, mountainous and high mountainous communities, which is the basis for the defining of corresponding compensation being set in the RA state budget.

Some of the articles on budget expenditure spring from the logic of the developmental projects. Such are, for example, 2012 “Fundamental renovation of high school buildings,” “Training of teachers,” “WB ‘educational quality and compliance’ project” and other Articles.

The remaining expenditure, may arise from ongoing expediency, be reflected in state educational programs and directed towards the improvement in quality of education.

Financing of general education from the RA state budget is realised through general education EIs and also by RA Ministry of Education and Science, marz administrations (Yerevan municipality) and other structures in the education system.

## 1.2 Teachers in the RA general education system

### a. The concept of “Pedagogic worker” and the place and role of the teacher in the RA general education system

The pedagogic worker (teacher) is one of the participants in the process of teaching and education. According to Article 3 of the law on “General education,” a teacher is an employee of an EI who promotes and /or secures the student’s mastering of the general education (basic, supplementary) syllabuses and the process securing the criteria requirements by subject, and also the acquisition of relevant knowledge, skills, and abilities through the application of teaching methods, and also the promoting and/or shaping of a value system.

Thus, the administration of the EIs, represented by the directors, deputy directors, teachers, tutors and other workers directly connected to students in the teaching and education process are classified amongst teachers. The list of the latter reflects the present level of the science of pedagogy and is closely conditioned by organisational, methodological and content requirements of educational and teaching processes. It is set by corresponding laws and legal acts.

Mention of the main and supplementary general education syllabi defined in the law also stresses the pedagogic nature of work aimed at fulfilling the demands of vocational education of voluntary learners outside the basic syllabi. With that, the definition includes corresponding workers in pre-school, general education and extra-curricular educational-nurturing EIs.

By government decision No.416- N of 2011 on “Approval of tariff-qualification description of managing and teaching staff of RA pre-school EIs,” the following teaching positions are defined in the pre-school education sector:

1. Director
2. Methodist: deputy director of educational-nurturing work
3. Educator
4. Speech therapist
5. Psychologist
6. Social pedagogue



7. Physical education instructor
8. Music teacher
9. Dance teacher

The following teaching positions in general education are stipulated by RA government decision No.1391 of 14.10.2010:

1. Director
2. Deputy Director for education
3. Deputy Director for specialised educational assistance
4. Deputy for economy
5. Organiser of nurturing activities
6. Teacher
7. Special pedagogue
8. Psychologist
9. Social pedagogue
10. Military instructor
11. Librarian
12. Laboratory technician

According to RA government decision No 1245- N, the following teaching positions in extra-scholastic educational-teaching establishments are provided for: 1) director, 2) deputy director for economy and 3) group leader.

The stipulated lists serve as the bases for hiring, paying salaries, regulation of dismissal, pensions allocation, definition of holiday and vacation schedule, and regulation of other forms of labour relations.

The position and role of the teacher in the education system is conditioned first and foremost by legislatively stipulated state social guarantees and the rights and responsibilities set for him in the educational and teaching process. The RA law on “Education” guarantees that the teacher’s rate of remuneration cannot be lower than the mean wage of workers in state budgetary institutions, as the law provides a special status for teachers in state general education EIs in border regions, and mountainous communities.

The main sphere of rights of teachers concerns the internal management of EIs. The rights given to teachers during the education process secure the effectiveness of his teaching activity. The teacher has the right for example:

1. To choose and apply teaching methods, recommend textbooks and other educational materials on condition that the requirements of the state criteria are achieved,
2. To have all necessary organisational and logistic conditions,
3. To participate in trainings, conferences and discussions,
4. To discuss and express opinions (both written and oral) about the functioning syllabuses, textbooks and auxiliary educational means.

In the list of rights there are some that underline the personal status and social-moral value of the teacher. For example, it is stipulated that the teacher has the right of protection from activities of learners, pedagogic and other workers which undermine his professional reputation and dignity.

In exchange for the rights, the teacher is obliged to respect the rights and dignity of the learner, consistently raise his professional qualities, cooperate with parents and colleagues and realise his educational and teaching work in a proper manner.

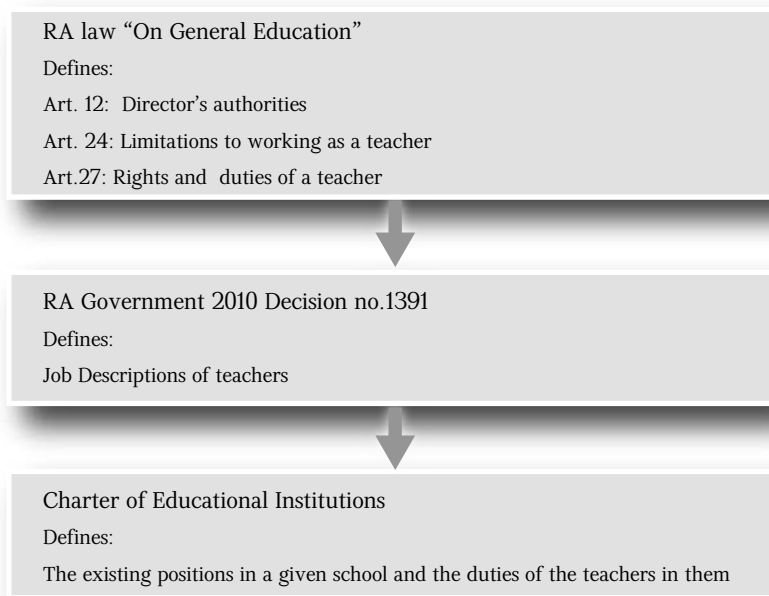
According to 2011-2012 academic year statistics: 41,757 teachers are employed in the RA general education system (excluding pre-school), of which 6,640 are men; 40,715 teachers are involved in

state general education EIs and 1042 in non-state general education EIs; 40,340 teachers are employed in general education, 544 in specialised and 873 in special schools.

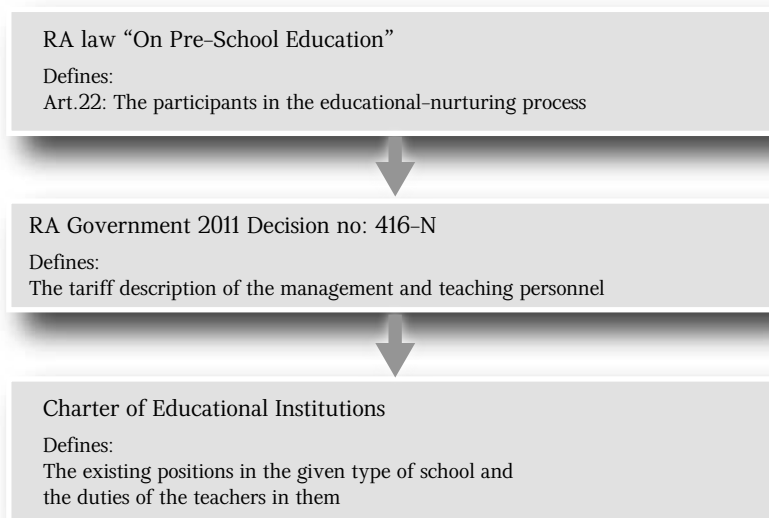
### b. The management of teaching staff in the RA general education system.

The management of teaching staff in the RA general education system is realised through evaluation and incentive systems: the definition of job descriptions, the improvement in qualification, training, and attestation, and the hiring and dismissal procedures.

**The basic requirements of teachers:** The requirements set before teachers are stipulated in legal documents at three levels: in RA laws, RA government decisions, and in the charters of pre-school and general education EIs and are also reflected in the tariff lists of pre-school and general education EIs. We present that legal system:



The same gradation for pre-school education can be presented in the following manner:



The RA laws fulfil dual functions in this gradation. Firstly, they are the bases for drafting legal Acts of lesser legal force and the regulation of genuine relations in the general education sector. On the other hand, the law is the guideline for the consistent and gradual delineation and regulation of real relations. In this case, the RA government decision plays the role of temporary and transit intermediary between the desired and current situations. Disparities which arise between it and the provisions of the law are justified by the transitory clauses of the law. Currently, the requirements presented to the teacher are in just such a transitory state.

The basic requirements of teachers are reflected in the job descriptions. The descriptions outline the following, which are necessary for teachers:

1. Qualification (level of education, specialisation and experience)
2. Knowledge
3. Skills
4. Duties

Qualification requirements for different teaching positions are differentiated.

The highest qualifications in the general education EIs are required for the position of director. They are: higher education and at least seven years of experience in teaching, educational work or the education management sector in the previous ten years.

Pedagogic education is not stipulated for the positions of director's deputy for education, director's deputy for professional education support, and teachers. This can be offset by the length of pedagogic experience. A teacher may also have middle level professional (vocational) education.

For the organiser of nurturing activities, special teacher, psychologist, social teacher and military instructor, compulsory pedagogic or professional qualifications corresponding to the given position are required.

The lowest requirements of qualifications are requisite of the director's deputy for economic activities, librarian and laboratory technician. The only requirement for them is that they should have higher education or middle level vocational education.

At the same time, according to the law, a teacher must have pedagogic education or higher education with relevant qualification and at least five years of teaching experience over the previous 10 years. This requirement of teachers will come into force in 2018. In other words, from 2018 only professionals with higher education will work in schools and a few years later, only teachers with pedagogic higher education.

All pedagogic positions can be divided into four groups according to their knowledge and relevant skills: 1) director; 2) two director's deputies, organiser of nurturing activities, teacher; 3) special teacher, social pedagogue, military instructor, psychologist; 4) director's deputy of economy, librarian, and laboratory technician.

Knowledge of RA legislation and other legal acts is compulsory for all teachers. Psychological-pedagogic knowledge (pedagogy, psychology, physiology, principles of hygiene) is also compulsory for the majority of positions. Knowledge of the regulations developed concerning the protection of the learner's life and health (labour protection, safety equipment, fire safety, first aid) are also compulsory for some positions.

The director should also have knowledge of the corresponding legislation pertaining to his/her position. Psychological-pedagogic knowledge and regulations for the protection of the learner's life and health are also compulsory.

In the second group, more emphasis is placed on the requirements for psychological-pedagogic knowledge and the regulations for the protection of the learner's life and health.

In the third group relevant specialised knowledge is considered important.

The fourth group differs in that there is no requirement for psychological-pedagogic knowledge for workers in this group.

According to data for the 2011–2012 academic year, 41402 teachers (excluding directors) work in the RA. Of these, only 1022 work in the non-state general education EIs system. Currently teachers with higher education, incomplete degrees, middle-level vocational pedagogic and non pedagogic education, and also secondary education, work in EIs.

The distribution of teachers according to their education level:

	Higher education	Incomplete Degree	Middle-level vocational	General secondary
Pedagogic	33,201	4,358	500	-
Non-pedagogic	5,827	605	37	-
				137

According to the data for the 2011–2012 academic year, the number of teachers with higher education constitutes 79.5% of the total number of teachers. This number is 2.5% higher than in the previous 2010–2011 academic year. In the previous academic year the proportion of teachers with higher education (including those with pedagogic education) in general education EIs, in the total number of teachers, was less. In all the remaining groups, incomplete degrees, middle-level vocational, secondary professional), the proportion was higher.

The structure of pedagogic staff (excluding directors,) according to age groups:

Up to 25	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	Over 65
2,256	3,557	3,841	4,865	5,379	5,622	6,165	5,592	3,642	838

Thus, the majority (54%) of all teachers are in the 40–60 age groups.

The definition of main requirements and criteria allows for legislative control. The mechanism for including the best of those meeting the requirements in the RA general education system, with the objective of securing the quality of general education and taking into account the central role played by the teacher in educating and nurturing, is defined by RA legislation: It is the competition for vacant positions for teachers.

The legislative requirement, approved by the RA –government decision No. 1262 of a competition for vacant positions for teachers has been operational since 2010.

The authority to select a teacher belongs to the competition committee, which includes the director (chairman of the committee), the director’s deputies, sub-committee leaders, specialist teachers of the given EI and other EIs. The director appoints the teacher.

Selection takes place in two phases, composed of oral and written tests. The professional qualities, according to state general education criteria, of the candidate for the teacher’s position are tested in the written stage. Their practical pedagogic and professional skills are tested in the oral phase.

**The Ongoing evaluation system:** After the teacher is hired, the issues of maintaining and adapting his/her qualitative characteristics arise. These are mostly resolved by training and attestation measures.

The training (raising of qualification) and attestation processes are closely related. Training precedes attestation. Training and attestation are realised once every five years. Trainings are conducted using the general education EI’s financial means.

The aim of attestation is to decide the conformity of the teacher’s knowledge, working capabilities, and skills to the position occupied by him/her. The attestation is a simple procedure based on the examination of the teacher’s documents. It is conducted by the regional committee in the marz (or

Yerevan). In the case of a negative decision by the committee, or a decision to change the type of attestation, the teacher moves on to the complex procedure of attestation, which is in two phases: testing and interview. They are conducted by the republican committee. A negative decision concerning attestation is considered grounds for dismissing the teacher.

Reaching retirement age is not in itself sufficient grounds for dismissal of the teacher.

**System of incentives:** There are two forms of incentive: financial and moral. The financial incentive for teachers is realised through granting various categories of qualifications and the provision of corresponding bonuses. The teacher's category aims to show the level of his/her professional and pedagogic knowledge, capabilities and skills. It is conferred as a result of attestation. Three levels of category, which are given successively, are provided through attestation. The highest category is the third. In order to confer it, an independent piece of work, new methods, the use of supplementary educational materials and an individualised psychological-pedagogic approach is required. The second level category teacher masters his/her academic subject, can help form the independent thought of his pupils, has an individual psychological-pedagogic approach, and personally develops the thematic units of individual courses. A first-level category teacher masters the entire subject matter of the subject he is teaching and is capable of properly fulfilling his duties within the framework of the state curriculum and criteria.

There are no categories and bonuses provided for teachers in pre-school EIs and supplementary education institutions.

Moral incentives are mostly realised through the "Best Teacher" and "Best Educator" competitions. The competitions are annual and are aimed at encouraging the creative work of the teacher, and the application of innovative methods and best practices.

Teachers are given the opportunity to have their own articles and methodical developments printed in the "Krtutyun" (Education) newspaper and on the [www.amedu.am](http://www.amedu.am) educational website. The published materials influence the reputation of the teacher and are also taken into account in the "Best Teacher" and "Best Educator" competitions and during attestation.

The supplementary education sector has no incentive system, stipulated by the state.

### c. The remuneration system for pedagogic employment

The remuneration of teachers is implemented corresponding to the organisational-legal form and the financing system of the EI. Since the schools are financed on a per student basis, it is not possible to legislatively stipulate a stable sum for remuneration of teachers. In the case of financing on a per student basis, the remuneration of the teacher is conditioned by the EI's available means. The weekly maximum load for state pre-school and general education EIs is stipulated by the state. Also, the remuneration cannot be lower than 32.500 drams. The salary for teachers in non-government EIs cannot be less than that decided by the state standard for similar public EIs stipulated by the state financing criteria.<sup>15</sup> In general education schools the salary given to teachers for the workload, the pedagogic rate, is set by the council of each general education institution, according to the financial capabilities of the Institution.

The RA Government decision no.196<sup>16</sup> of 2008 stipulates the following maximum weekly workload for a teacher:

1. For special educators: 24 hours.

<sup>15</sup> See: RA law on "Education", Article 47

<sup>16</sup> With this decision, RA Government Decision No. 201 about "The peculiarities of establishing teachers' work and holiday regimen," was amended by Government Decision No. 196, "The peculiarities of work and holiday regimen of workers of educational institutions."

2. For educators of children with special needs and teachers of full-day groups: 30 hours
3. For pre-school EI educators: 36 hours
4. For teachers in extracurricular institutions: 24 hours.
5. For teachers: 22 hours

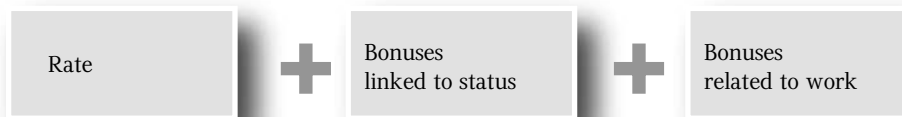
In practice, different rates may be set for teachers teaching elementary, middle and senior classes. At present this constitutes on average 116,000 drams.

The increase in the salaries of teachers is reflected by a certain percentage in the financing on a per student basis formula, and compared to the current rate in the given EI, the salaries of the teachers change by the same percentage. The average class size may also be significant for remuneration. In the case of the average class size being less than half (by the decision of the committee), the teacher, in conditions of the same workload, may be paid half the stipulated rate.

Apart from being paid for the time spent teaching, the teacher receives premiums for education and experience. Teachers who have received categories of qualification must receive premiums for the given category according to the stipulated amount. This amount fluctuates between 10–50% of the operating pedagogic rate. Supplementary salaries are provided for teachers in state EIs in RA border, mountainous and high mountainous areas.

The teacher is remunerated not just by the rate of pay for the hours spent teaching. His/her total payment includes a second part, which concerns pedagogic activities, but has no direct connection to teaching class. This relates to the checking of written works, management of classrooms, conducting events, self-education, training etc.

Thus, the salary of the teacher can be presented by the following diagram, where all indices are of a “floating” nature.



One of the peculiarities of remuneration for teachers is also the 35, and in some cases 48 days of annual paid holidays. Thirty five days are provided to managers of EIs, their deputies and managers of sub-divisions, and teachers in extra-curricular educational-nurturing institutions. Teachers from pre-school and general education EIs, are entitled to 48 days paid vacation.

#### **d. The main directions of ongoing reforms in the RA general education system.**

The general education sector, in its structure, management and financing principles, is still in the process of targeted and consistent reforms. If we are led by classic ideas of the educational system, according to which self-transformation and self-development are possible and implemented through the resolution of internal issues in order to maintain stability under the influence of the external world, then we have to admit that it is far from being a system that efficiently serves the objectives of general education. Therefore, the next political issue in the general education sector must be the realisation of such relationships within the system that will make it strong and unite it around a single objective. This is the reason why current education policy is aimed at encouraging a corresponding social environment and exceptional achievements, and strengthening the abilities of guiding the reforms etc. In other words, the creation of such links and relationships within society, that will spontaneously take the education system in the right

direction and ensure its development. And from the legal-formal point of view, as the objective of general education is the acquisition of the state general education standards by the pupil, then the reforms of the present phase are directed towards the creation of mechanisms ensuring the quality of education and the improvement of the functioning mechanisms.

2010 can be considered the beginning of the present phase of reforms when the “Educational quality and compliance” project began with WB financial assistance. Subsequently, the contents of the former, formed part of the law “On the approval of the RA state program for educational development 2011-2015”.

Strategic objectives are also stipulated in the 2008 RA government decision no.10 “2008-2015 Strategic Program on Preschool Education Reforms,” the concept of reforms in general education and medium-term expenditure and other documents.

Minimum changes are made in the structure of the system. These changes concern the shaping of a separate network of high schools. From the institutional point of view, the creation of the network, ended in 2012. In the present phase, measures for the establishment of the schools are ongoing. Steps are being taken towards enriching the material and technical databases, raising the quality of teachers, preparing new subject syllabi and textbooks and the creating modern libraries.

Increasing the powers of management of financial means and raising the efficiency of the system of management is being planned. Much work must be undertaken towards identification of the content requirements presented to all the elements of general education and the management system. In particular, a concept for the development of extra-curricular education; state education standards; and the job descriptions, and attestation and training categories of extra-curricular nurturing and pre-school education sectors must be developed.

In both the formal-legal and content sectors, the emphasis of the implementation of the policy is placed on the teacher. It can be said that in the current phase, the teacher has taken the central role in the development of the system. Future development is no longer possible without stressing the importance of the position and role of the teacher, and valuing his/her knowledge, abilities, skills, and internal motivations for work and improvement. To this end, it is intended to:

1. Review and improve the quality of pedagogic education, in compliance with modern educational issues and content:
  - Introduce new bachelors and masters programs,
  - Review the contents of academic programs,
  - Promote the link between school and higher education
2. Study the needs of the teacher and raise the effectiveness of training,
3. Train teachers in compliance with current requirements set before them and new programs, textbooks, and methodological guidelines,
4. Raise the professional quality of high school teachers,
5. Contribute to raising the teacher’s reputation by encouraging the activities of pedagogic unions, innovations, initiatives, and by publishing best practices and achievements,
6. Introduce a database of job positions for teachers,
7. Improve the system of pedagogic assignments,
8. Implement attestation of teachers,
9. Secure methodological assistance in inclusive education.

In this context, the teacher acts as an active participant both as a subject and object of reforms. On the one hand, he is the bearer of those changes that are intended to be carried out precisely for him in the instruction and nurturing process. On the other hand, he has perhaps



In both the formal-legal and content sectors, the emphasis of the implementation of the policy is placed on the teacher

never felt much state interest in receiving the expected results. In previous phases of reforms, the teacher was on the whole forced to adapt to the reforms being carried out, by finding his own place in the new social-economic and educational situation. A slight break in this situation was noticed in 2004 when teachers' salaries were raised significantly and mention was made of raising the status of the teacher in society. In the current phase, the teacher will be forced to deal with re-defining his rights

and responsibilities and the new correlation between them and this version. How functional it will be, whether it will serve the aforementioned objectives and to what extent it will shape a new, high level of self-awareness greatly depends on how much this version expresses the idea of social security for teachers.

## Chapter 2. Social protection in theory and international practice

### 2.1. The concept of social protection

#### a. The international understanding of social protection

The modern understanding of the concept of social protection of a society is reflected in international and national rights. According to the accepted international definition, social protection is a system of priorities and mechanisms for realising legally stipulated social, legal and economic guarantees of all levels of government bodies and other institutions and also a system of social services that are called upon to secure a certain level of social protection and help the population reach an acceptable standard of living in accordance with certain conditions of social development. Social protection is a system of economic, social and legal guarantees of protection and realisation of human rights and liberties. Being socially protected ensures a dignified level and quality of life for citizens. This mechanism includes comprehensive measures providing guarantees for employment, remuneration and salary, compensation for losses due to devaluation, and guarantees of aid for the sick and elderly.

The main aspects of social protection were set out in the Social Charter approved by the European Council in Turin in October 1991. Some of these related to rights of remuneration for labour and conditions of work: the right of each individual to freely choose occupation and earn his living, the right to fair conditions of work, the right to safe and healthy work conditions, the right to a fair remuneration, etc. Several articles of the Charter relate to the rights of the individual to medical assistance and the protection of health, or the organisation of leisure, or the right to be protected in old age. Attention is also paid to the cultural rights of the individual. According to the Charter, workers have the right to be informed and to be consulted with regarding their jobs

In the second part, The European Council Ministerial Conference explains what "fair remuneration" is.

The definition of social protection supplements the UN General Assembly's 2200 A (XXI) resolution of December 16, 1966 which came into effect in 1976, and states particularly in point 6 that



the signatory states of the treaty must recognise each person's right to earn his living by working and initiate steps to provide the conditions for realisation of that right. Article 7 mentions the right for fair remuneration for each individual, which presumes sufficient wages for a decent living, equal wages for work of equal value without gender distinction and conditions of work which comply with safety and hygiene norms. The same article ensures equal opportunity for everyone to be promoted in employment, and the right to leisure, rest, and paid vacations.<sup>17</sup>

The reviewed European Charter (1996) contributes a large portion to the definition of the concept of social protection. It is constituted of 31 Articles, and guarantees the rights of the worker to housing, health, education, employment, legal and social protection, and protection against movements and discrimination.

### **b. The types of social protection and their forms of organisation**

The legal-organisational forms of social protection are divided into state and private forms. State forms are: social insurance, social assistance, state security and compulsory savings.

Social protection is foreseen for families of low per capita income, the members of which do not secure the social minimum necessary.

Social protection can be realised in the form of money (pensions and benefits), and food-stuffs, and also through the provision of various services to individuals who are objects of social protection. It can be both of a compensatory nature and of a precautionary (preventative) nature.

Direct state provision for disabled individuals is also a state form of social protection. The main characteristics of direct state provision are the financing of costs from the state budget and the definition of the groups of individuals to be provided for and the level of their provision, according to priorities set by state authorities.

In market economy countries, the volumes of application of direct state security is quite limited. The other organisational-legal form of social protection is social insurance which is widely used in market economy societies, compared to other kinds of social protection. At its base lie the concept of social risks and the need for their compulsory and voluntary insurance.

The financing of social insurance payments is realised by the employed citizens and the insurance payments of their employers, which as a rule are paid in equal shares. Sometimes the state also participates in the financing of the social insurance system.

In market economy countries there is also broad application of a social protection organisational-legal form, such as social assistance. That is of a targeted nature and is given after studying the level of neediness of people if they have no other source for existence.

Other organisational-legal forms of social protection can be custodial banks/foundations, which provide funds in cases of specific circumstances arising. These types of funds exist in certain countries in Asia and Africa (former colonies) and are community organisations that are called upon to realise compulsory savings by all employed citizens. The objective of the fund is to provide each citizen with individual responsibility for his future welfare. It is possible to take advantage of those investments in circumstances of temporary inability to work or unemployment.

The unique peculiarity of the private forms of social protection is that they are not created by a compulsory procedure corresponding to the legislation but at the private initiative of individual subjects (entities) who take upon themselves the responsibility of realising social protection for individuals. The private forms can be used as medical assistance, pension security, temporary benefit in the case of unemployment, etc.

<sup>17</sup> See: [www2.ohchr.org/english/law/cescr.htm](http://www2.ohchr.org/english/law/cescr.htm)

Thus, social protection is a system of social-economic relationships, which is intended to provide multi-faceted assistance to those unable to work or with limited ability to work and also help those families where the incomes of the able-bodied members of the family do not secure the necessary standard of living for a family.

Efficient social protection presumes the conducting of a policy that adequately reflects the social wellness of people, is capable of ascertaining social discontent and the strength of social tension, and preventing possible clashes and radical forms of protest.

### **c. The Republic of Armenia's international obligations in the social protection sector**

The RA commitments for social protection are outlined in the country's Constitution, RA social legislation and the obligations undertaken before the international community. From the viewpoint of the international community, the signing of the Revised European Social Charter of 1996 is important, because the Charter explains the concept of social protection and the rights arising from it. This Charter was ratified by the RA in 2004. The procedure for ratification of the Charter provides the compulsory minimum number of Articles and the timetable for expansion of obligations. Such a procedure allows the countries which have ratified the Charter to gradually address the issues of social protection of the public. The contents of the Charter cover all forms of social rights and suggest mechanisms for realising rights.

Overall, RA has ratified 13 Articles and 18 points of the Charter<sup>18</sup>.

According to the Articles of the Revised European Social Charter, the obligations are: Article 1 – The right to work; Article 2 – The right to just conditions of work; Article 5 – The right to organize; Article 7 – The right of children and young persons to protection; Article 8 – The right of employed women to protection of maternity; Article 17 – The right of children and young persons to social, legal and economic protection; Article 18 – The right to engage in a gainful occupation in the territory of other Parties; Article 19 – The right of migrant workers and their families to protection and assistance; Article 20 – The right to equal opportunities and equal treatment in matters of employment and occupation without discrimination on the grounds of sex; Article 22 – The right to take part in the determination and improvement of the working conditions and working environment; Article 27 – The right of workers with family responsibilities to equal opportunities and treatment; Article 28 – the right of workers' representatives to protection in the undertaking and facilities to be accorded to them. The titles of the mentioned Articles indicate the social issues in which RA has international obligations.

Apart from these Articles and the rights stipulated in them and mechanisms for their realisation, the RA has ratified separate paragraphs of several Articles. The ratification of the paragraphs means that the RA cannot assume the full realization of the rights stipulated in those Articles in this phase, but is taking steps towards partially ensuring those rights. Thus, The RA accepts the difficulties of providing the right to safe and healthy working conditions, and has only announced its willingness to develop the policy towards this end and the prevention of accidents, which is legally formulated in the 1st paragraph of Article 3. The Article concerning fair remuneration has been almost totally ratified except for one paragraph which obliges the state to provide a decent standard of living for families. The RA does not assume Article 6: the right to bargain collectively, Article 10: the right to vocational training, Article 11: the right to protection of health, Article 16: the right of the family to social, legal and economic protection. Article 21: the right to information and consultation, Article 23: the right of elderly persons to

<sup>18</sup> See: Acceptance of provisions of the Revised European Social Charter (1996) [www.coe.int/t/dghl/monitoring/socialcharter/Presentation/ProvisionTableRevOct2011.pdf](http://www.coe.int/t/dghl/monitoring/socialcharter/Presentation/ProvisionTableRevOct2011.pdf)

social protection, Article 25: the right of workers to the protection of their claims in the event of the insolvency of their employer, Article 26: the right to dignity at work, Article 29: the right to information and consultation in collective redundancy procedures, Article 30: the right to protection against poverty and social exclusion, and Article 31: the right to housing.<sup>19</sup>

## 2.2. The experience of social protection in European countries

### a. Remuneration for work

In this section we will assess the modern trends in the areas of teachers' salaries and the provision of working conditions in some countries. Teachers' salaries are, in agreement with salary market norms, in 15 European countries (the old EU member states), much higher than in those of the new EU member states in South-Eastern and Eastern Europe. For newly graduated elementary school teachers, the highest monthly salary is 14 times higher than the minimum wage in Bulgaria.

Throughout their careers, the divergence between wages for teachers in different countries is different and there is no special characteristic linked to their geographic position. In some of the 15 EU countries the difference between the wages of a novice teacher and one with experience is great. In countries, such as Finland, Italy and Scotland, there is little difference between salaries for teachers with different levels of experience.

It is also interesting that countries (Austria, France, and Belgium) that are considered European models of socially oriented market policy, usually characterized as having medium income differences, have large differences between teacher salaries, whereas Anglo-Saxon countries and the new member states have much smaller differences in the salaries between beginner and experienced teachers.

In Latvia and Lithuania (border countries) the difference in salaries of teachers is substantially low when the salaries are calculated according to standards of purchasing power, due to the low costs and prices in poorer countries. The difference in wages according to experience is also different according to the country. For example, elementary school teachers' salaries are lower in RA (the mean salary constitutes 85,000 to 90,000 AMD), than in Austria where it is almost five-fold that. It is amazing that in some member countries, according to purchasing power standards, salaries are better represented. For example, in the Czech Republic, according to purchasing power standards, elementary and secondary school teachers are paid much more than in Finland, Italy and Sweden. It is also necessary to point out that in Serbia and Turkey, beginner teachers receive the same wage as their colleagues in Portugal, according to purchasing power standards, and all of them receive much more than beginners in Iceland.

In all cases, in the 22 EU countries, the beginner teacher in elementary schools receives more than the state minimum wage. And elementary teachers in Russia, Turkey and Serbia receive three times more than the state minimum.

From this we can draw the simple, and in some ways surprising, conclusion that it is not possible to speak precisely about the levels of, and differences between, the salaries of Eastern and Western European teachers.

This is an accurate picture of cash salaries, even if it is difficult to compare because of different taxation and social insurance reasons. The initial expectation related to high taxes in richer countries and low taxes in new member states is not established. Of the 15 rich EU states, Ireland,

<sup>19</sup> See: Revised European Social Charter [www.coe.int/t/dghl/monitoring/socialcharter/Presentation/ESCRBooklet/Armenian.pdf](http://www.coe.int/t/dghl/monitoring/socialcharter/Presentation/ESCRBooklet/Armenian.pdf):

Finland and Italy have low tax rates and low expenditures of social insurance while the poorer, new member states such as Hungary and Serbia have high tax rates. Quality indicators, related to work conditions and quality, also show no East-West difference.

As far as the issue of gender difference in salaries is concerned, many reports, and experts note that salaries and payments set by the states are gender-neutral, which if course can also be said for the Republic of Armenia. Nevertheless a few countries still differentiate wages between 3.5 to 18 %, based on gender. Reasons given to explain this include different progressive career opportunities for men and women, men being given more overtime work, and in some cases, more men being included in classes with fewer numbers.

If we consider average weekly classes for an elementary school, then in two Scandinavian countries they may be in the highest and lowest levels. The average work hours in Sweden are the highest at 35 hours for both beginners and experienced teachers, and the lowest in Italy at 17 hours for beginners and 13 hours for highly experienced teachers. Let us mention that in the RA a full time teacher works 22 hours weekly.

Privatization or changes in the public status of the schools are not a decisive factor in teachers' work conditions, partly because of those changes are limited and partly because of the absence of a correlation between the public structure of schools and the working conditions of teachers.

In Denmark, the UK and Cyprus, the share of private schools is lower than 20 percent. Only Spain, Malta and the Netherlands have higher levels, but in these countries working conditions of teachers are not low. Of these countries it is only the Netherlands that shows a high difference in wages, and it also presents the widest pay gap relating to gender differences. For any deterioration in work conditions whatsoever, those responsible refer to a shortage of means and cuts in expenditure by the government. There are teachers who have lower levels of qualification than the criteria required in Sweden, although this can also be seen to a certain extent in several other countries. Of course Sweden shows relatively different results from different viewpoints, including the high level of overtime work, deterioration in work conditions and the growth in de-centralization of joint operations.

As far as the part-time work of teachers is concerned, elementary and secondary schools have shown the same characteristics: in many countries the salaries of part-time teachers is 20% less. Latvia and Iceland are the exceptions with part-time rates of 30% and 25% respectively. In Austria and Belgium, the wages of part-time teachers in secondary schools is 25% higher.

The insufficient number of teachers is considered a serious issue. 50% of state schools have reported that they have a shortage of teachers. In reality, 70% of those responsible have said that they have a serious shortage in specialists in various subjects. Such issues are a result of low wages and unequal work conditions.

As a result of the shortage of teachers, the generation change in teachers came to light in the Netherlands, Denmark and Lithuania where the number of teachers retiring is high. In contrast to this, the increase in population in Italy is the reason for the shortage in qualified teachers. Georgia, RA, Lithuania, Latvia and the Netherlands report that the shortage is due to emigration.

Since all these statistics are relative, they cannot ensure the detailed picture of each



In 22 EU countries, the beginner teacher in elementary schools, receives more than the state minimum wage

country, where the national characteristics are also taken into account. The main general tendencies of teachers' salaries and work conditions for the whole of Europe are presented here, whereas the diversity of all the sectors can be viewed as the "arched description" of the position of teachers in Europe. If in RA, RF and Europe it is becoming increasingly evident that the social protection of teachers is weakening.

### **b. The European experience of management of teaching staff**

The teacher who receives credentials from reputable bodies, such as the government, higher education Institutes or any other private institution is considered to have qualification. These qualifying certificates allow teachers to teach in schools which generally require certification and also allow educators to teach in a certain context and within the limits of academic curricula. Many authorising bodies require training before giving the teacher the qualification certificate.

In France, teachers (*professeurs*) are on the whole civil servants recruited through competitive exams. They must receive initial education in college and professional education in University Institutes for Teachers Training (IUFM). Beginning in 2010, IUFM courses were replaced by a new education system. Six groups of teachers have arisen.

- *Professeurs des écoles*: these are elementary school teachers who have passed the CRPE competitive exam
- *Professeurs certifiés*: these are high school teachers who have passed the CAPES qualification to teach secondary education or CAPET qualification to teach technological education
- *Professeurs de l'enseignement privé*: teachers of special professional high schools who have passed CAPLP qualification to teach special professional subjects in high school
- *Professeurs de l'enseignement physique et sportif*: sports teachers who have passed CAPEPS qualification to teach sports subjects
- *Professeurs agrégés*: high school teachers. They have passed Agrégation competitive exams. This is considered a title with high rating and they frequently apply for academic posts and are in the minority in high schools.

The first five receive permission and a minimum bachelor's degree is required. They receive the same salary. A minimum master's degree is required of those in the sixth group. They are paid high salaries.

Much attention is paid to generation change in the European countries. The management of age is considered one of the important issues in personnel management.

According to the Italian newspaper "La Repubblica"<sup>20</sup> France has, on average, the youngest teachers (mean age of 40) and Italy has the oldest, with a mean age of 51. Germany is the second: 46 years mean, Japan is the third: 45 years mean, the UK and USA have been united and their mean age is 41 years. These numbers may be variable since studies have been conducted within the framework of teachers up to the age of 50. Thus, for example, Germany, which is in second place in mean age criteria, has the highest index for teachers over 50. In Germany 50% of teachers are over 50. Experts consider this in different ways: On the one hand, from the aspect of the theory of work experience (the higher the age of the teacher, the more the experience) and on the other hand, this speaks about the fact that there are no professionals who want to work in the relevant sector.

In Italy, many teachers have requested that a law be passed permitting teachers to retire at 50, so that positions will be opened for young workers.

<sup>20</sup> www. Larepublica.it 1 March:

## Chapter 3. Assessment of the social protection of pedagogic workers in the RA general education sector

As was mentioned in the previous chapter, the concept of social protection rests on the interpretation of the basic social rights and is directed towards the provision of guarantees and mechanisms for their realisation.

Two methodological levels can be singled out in the study of social protection of teachers. In the first level, the issue of social protection of teachers is considered in the broad context of the RA system of social protection and is not separate from the social protection of other strata. This research predominantly reflects the degree of realization of basic social rights stipulated in the RA Constitution, which shows the degree of establishment of the RA as a social state.

The second level may be considered the issues of protection for teachers as a separate social stratum. These are directly linked to:

- The degree of feasibility and consistency of the RA education legislation,
- The degree of RA educational legislation corresponding with the education reality.

In both cases, a situation is created as a result of low indices, which is characterized by social stability, disproportionate rights and responsibilities, uncertainty and psychological constraints. It is impossible to speak of an efficient system of social protection in this case.

During our research we assessed different sides of the social protection of RA teachers within the RA constitution, paying attention to several issues:

- a. Financial security, social assistance and pension security of teachers
- b. The ability of the RA government to neutralise factors affecting the drop in standard of living,
- c. The efficiency of the system of hiring, evaluation and advancement of teachers in the education sector,
- d. Guarantees of freedom from arbitrary administrative and psychological pressure,
- e. The framework of stipulated duties.

Several state and private forms of social protection have been left out of our research. One of the reasons is the limited volume of this study which compels the limiting of priorities, bringing more developed and weighty elements out of issues of a complex nature. In this study, we have also not discussed the issues of technical and other favourable work conditions for teachers, compulsory social insurance, social privileges, the activities of pedagogic non-governmental organisations and many other issues.

The third reason for this approach is that in the current RA general education system not all the constituents are developing in parallel. Thus, some of the measures intended for preschool reforms are either in the process of being executed or have started in 2011, which makes evaluation in this phase fragmented and not objective. Therefore, our attention will be focused on teachers in general education EIs.

### 3.1. Assessment of financial security and conditions for rest

#### a. The assessment of financial security of teachers

Fair remuneration for work is an inseparable part of social protection. This presumes:

- The provision of minimum standard of living
- Protection from factors reducing the level of wellbeing
- Provision of the opportunity for stable social and public life

The salaries of teachers are constantly being discussed in Armenia. The low wages paid to teachers for many years has become the reason for the existence of diverse negative phenomena in the system and in society. Significant changes were made in 2003–2004 when, based on the 2002 RA government decision No.2047– N “On Rationalisation of the RA general education system and changes to the 2001 RA Government decision No. 1236 of December<sup>24</sup>” the number of teachers was reduced. And although the rationalisation measures left around 4000 teachers unexpectedly unemployed (which caused a wave of discontent in the public), the teacher/pupil relationship and average density of pupils in classrooms have risen, allowing a considerable increase in teachers’ salaries.

The basis of the functioning financial system was laid in 2007.<sup>21</sup> With the application of the system, the mean monthly salary of teachers was raised by around 30%, to about 116.3 thousand drams<sup>22</sup>.

During 2010–2012, increasing teachers’ salaries was not considered a priority by the RA government, as it is currently higher than the salaries of scientific and cultural sector workers.

Besides maintaining a satisfactory level of social security, the fairness of the present salaries for teachers is also provided by the following measures:

- Legislatively defining<sup>23</sup> the minimum monthly wage
- The legislative requirement<sup>24</sup> that the rate of remuneration of teachers in state EIs should not be lower than the mean salary of employees in budgetary establishments
- Differentiated financing for small general education schools
- Differentiated financing of general education schools in different localities
- Differentiated financing for general education schools of different educational degrees
- Giving bonuses to teachers in state general education schools in border, high mountainous and mountainous localities
- Provision of appropriate means for separate programs and supplementary educational services for general education schools
- Setting the duration of teachers’ educational work in pre-school, general education, and extra-curricular educational–nurturing EIs
- Through bonuses for different categories of qualification.

The differentiated system of financing is realised by supplementary coefficients, which increase the amount stipulated by the basic formula. In the case of financing on a per student basis, the resources of schools with few pupils are severely limited and the possibility of paying the teachers high salaries is small. In schools having 400 pupils or less in high mountainous regions, the basic amount is multiplied by a coefficient of 1.2. The basic sum intended for schools having less than 400 pupils, being the only one in a single settlement, is also multiplied by the same coefficient. The sum for schools in mountainous regions is multiplied by 1.02. Apart from that, additional payments are set for teachers in state general education schools in border, mountainous and high mountainous regions. All these measures allow for alignment of pedagogic incomes.

In the present phase in the development process of the fair remuneration system, the priority has been transferred from providing everyone with equal minimum living conditions to the issue of promoting teachers’ work and setting remuneration which corresponds to their professional quality. In this context, in 2010 –2011 in conditions of maintaining the mean salary of the school teachers,

<sup>21</sup> The system of financing according to number of pupils was applied based on 2006 RA Government decision No. 1262– N

<sup>22</sup> See: 2011 RA Government decision No. 955– N “On the approval of RA medium–term expenses program for 2012–2014”

<sup>23</sup> See: RA law on “Minimum wage”. At present it constitutes 32,500 drams

<sup>24</sup> RA law on “Education” Article 50

according to the 2008 RA government decision on “approving the strategic program for the creation of a high school system” a 20% supplementary payment is foreseen to the salary of pedagogic staff in high schools. In 2011 the introduction of a new procedure for attestation of teachers has made it possible to implement differentiated financing according to the category of the teacher’s qualification received as a result of attestation. Since attestation of all the teachers in the general education system is planned in the coming 5 years, the supplementary payment system will be fully operational after then.

Together with this, it is vital to point out that several issues exist in the system of remuneration for work of teachers. These put pressure on the stability of the wellbeing of teachers and neutralise the positive trends of the measures being implemented.

The authority of the council to set the rate for teachers in general education EIs creates discrimination between teachers working in different establishments. In other words, the same teacher may be paid differently for the same volume of work in two different schools. As a result of this, quality employees may be unevenly distributed.

The second issue in remuneration concerns other, non-financial criteria. The mean density of high school classrooms is stipulated at 20–25 pupils and for specialised subjects, 12–15. These criteria are lower than the criteria operating in middle schools, as a result of which the number of teachers is increasing in relation to the number of pupils. This in turn means that the total sum required for salaries is increasing. The ratio is such that as a result in 2011, despite the 20% additional wage provided to teachers, not only have teachers’ wages not increased, but they have decreased.

At the same time, the schools deprived of senior classrooms have also found themselves in difficult situations. The reduction in number of learners has meant the lowering of the overall level of financing. On the grounds already mentioned, the schools are obliged to reduce the number of teachers or lower the wages of the working teachers. If we take into account the present trend of emigration from RA, it is possible to predict future wage reduction for teachers. In these conditions the real reduction in income of teachers can only be filled to a certain extent by premiums set as incentives for categories of qualification.

Thus, the system of remuneration for teachers which is dependent on the number of pupils in a class is not in a position to secure the stability of wellbeing of teachers and neutralise the negative effects.

There are also some problems in the pre-school education and extracurricular education–nurturing systems. Because the majority of pre-school EIs operate with community financing, the unstable social conditions of communities directly reflect on the financing of kindergartens. The salaries of teachers remain low. Until 2005 the wages of kindergarten teachers was 15,000 drams. The 5th clause of the RA law on “pre-school education” stipulates that the salaries of teachers in pre-school institutions cannot be less than double the approved minimum wage in the republic, i.e. 65,000. However, this legislative requirement is infringed by many communities due to the lack of resources.

In extra-curricular educational–nurturing EIs, the problem has predominantly legal sources. The sample charter of extra-curricular educational–nurturing EIs approved by 2002 RA government decision No. 2145–N defines separate kinds of extra-curricular educational–nurturing EIs which includes youth creativity and art centres. Different specialised groups frequently operate in these centres. For example, music studios may operate side by side with art groups. However, the same sample charter stipulates that all associations financed from the RA state budget must include children from the age of 7 to 12. It is obvious that this term does not apply in the cases of instrument lessons where one teacher (sometimes two) is conducting a lesson with one pupil. In such cases there



is a contradiction between real-life relations and their legal regulation. As a result, the teacher is deprived of the state guarantees of performing his/her work and receiving fair payment.

**SUMMARY:** Although the measures implemented in recent years by the RA government have significantly improved the social security of teachers in EIs, measures are being undertaken to provide social stability. At the same time, internal contradictions are being noticed in the policy being implemented: partial disparity between legally stipulated criteria and financial capabilities and also the deficiency of the legal field. As a result, the principle of fair remuneration for teachers, with all its component parts, is violated.

## b. Assessment of the realization of the pension security and vacation rights of teachers

**Vacation right:** The right for rest of the individual is one of the important social rights which is generally realised by the provision of an annual paid holiday. According to Article 159 of the Labour Code the annual paid holiday is 20 days (in the case of a 6-day working week). However separate categories of individuals who work in special conditions, whose work are highly stressful or involve professional risks, may extend their vacation to 35 or 48 working days. The list of positions which have the right for extended annual vacations is approved by the 2005 RA government decision no. 1599-N.

According to this decision, the directors of all forms of educational establishments, their deputies and sub-division deputies are entitled to 35 days extended vacation. Remembering the definition of “Educational Institutions” it can be said that the directors of pre-school, general education (general, specialised and special) EIs and their deputies and the directors of extra-curricular educational-nurturing EIs and their deputies utilize this right.

The right for 48 days vacation is given to teachers, psychiatrists, military instructors, and workers caring for children in pre-school general education (general, specialised, special) EIs.

35 days extended vacation is provided to trainers of additional tuition in general education and extracurricular educational-nurturing EIs, and specialists in educational methodology and nurturing.

Although this decision grants a special social privilege to teachers, its substance needs further clarification.

A formal list of pedagogic positions is set by the RA government. The term “tutor” does not exist in this list or in the RA law on “Education” which is applied in RA government decision no. 1599-N. At the same time, more positions are included in the pedagogic workers list than are mentioned in the decision. The discrepancy between the terms and lists causes dubiety about such pedagogic positions as social teacher, librarian or laboratory technician. Do the latter, who are considered to be teachers according to the pedagogic positions list, enjoy the right of extended vacations? If they do not, then what are the criteria with which those positions have been separated from the other pedagogic positions with which they share equal rights and responsibilities in the education sector?

The fact that the vacations for supplementary program workers and those in extra-curricular educational-nurturing EIs are 35 days and not



Because the majority of pre-schools operate with community financing, the unstable social conditions of communities directly reflect on the financing of kindergartens

48 as with other teachers is also of interest as it has no explanation within the framework of the educational legislation. The latter stipulates the same rights and duties for teachers of basic and additional educational programs in general and extra-curricular educational-nurturing EIs.

Thus, it can be pointed out that RA Government decision no. 1599-N breaches the most important principle of securing social rights which requires the correlation between duties and rights.

**Pension security:** an important state form of social protection is pension security. In the sphere of pension security, alongside other forms of pension, partial pension rights are also intended for separate specialisations and positions. Partial is the kind of pension that is assigned to certain categories of workers in the education sector if they have reached 55 and have at least 25 calendar years of work experience. Moreover, at least 12 of those years must be in specialised work.<sup>25</sup> According to the RA government 2011 decision 665-N this right is utilized by state general education school directors, their deputies, teachers, kindergarten directors and other teachers. Just as the RA government decision confirming the lists of positions enjoying the right to extended annual holidays, this decision is not applied in the functioning conceptual apparatus of the education sector and brings about similar problems.

If the main pedagogic work is considered a basis for providing partial pension, then why can only teachers at state general education schools enjoy this right, when the nature of the work of teachers in non-government general education schools is in no way different from that in state schools?

It must specifically be mentioned that teachers in extra-curricular educational-nurturing EIs have been left out of the above-mentioned list. In the list of organisations, music, art and fine arts schools are mentioned but the list does not include all extra-curricular EIs. Thus, the list makes no mention of youth creativity centres, young technician's stations, camps, clubs, psychological centres and sports schools, which operate on the basis of the same sample charter and implement similar activities.<sup>26</sup>

Therefore, this decision also breaches the teacher's work as a complete social phenomenon, fostering discrimination between different teaching positions.

Such imperfections in the two differing state formulations in the social protection sector not only misrepresent the social policy, distorting the balance between duties and rights, but also impede the proportionate development of the education system.

**SUMMARY:** The RA social legislation stipulates privileged conditions for provision of pensions and extended vacations in order to benefit the social protection of teachers. However the imperfection of the RA government decisions undermines the use of these rights, breaches pedagogic work, as a complete social phenomenon, fostering discrimination between different teaching positions.

### 3.2. The assessment of management of pedagogic employees

#### a. Assessment of terms of employment

The degree of employment protection for teachers depends significantly on the system of management of employees and the effectiveness of its functioning. One of the pillars of management of pedagogic employees is the regulation of the hiring, maintaining, promoting, encouraging and

<sup>25</sup> RA law o "State pensions" 2010, Art. 14

<sup>26</sup> See: RA government 2002 decision no. 2145-N

dismissing procedures. The director solves the issues of selecting, hiring, and labour contracts for teachers and other employees in RA general education EIs.

The hiring of teachers is regulated by:

- Standard procedures of competition for vacant positions for general education EI teachers<sup>27</sup>
- The “RA general education EI” NGCO procedure for detaching pedagogic employees to RA border, mountainous and high mountainous<sup>28</sup>
- Hiring by RA law on “General Education” for targeted employment

The first procedure stipulates the terms for the announcement of competition, phases of competition and contents in the competition tasks for the vacant positions. According to that procedure a six or seven person competition committee is formed, and the candidates qualified for the vacant position go through two phases. The first is written. The applicant’s knowledge of the general education curriculum is tested through tasks of different natures, problems, exercises, and dictations. The second phase is oral. The committee members decide the level of the applicant’s pedagogic and practical professional skills in an interview. The committee votes on a decision for each applicant.

Thus, the procedure stipulates the terms for hiring a teacher, as a result of which the job market’s transparency and accessibility, which are the most important elements in social protection, must be secured. As a result of this procedure the possibility of defending the interests of teachers who satisfy the planned qualifying requirements, is created. However, it is necessary to note that this given procedure nevertheless does not cover the whole pedagogic field and operates with reservations.

According to this procedure, a teacher can also be appointed to a job without competition if:

- The position has been vacant for over three years
- The competition has been announced twice but no selection has been made
- The classes for the vacant teacher’s position have been divided between other professionals in the same school who are not working in several jobs and have corresponding qualification
- Has been detached as an expert by the RA Ministry of Science and Education

There is a fifth exception is stipulated by the RA law on “General Education”. It is the presence of a candidate with a targeted pass with specialised education

These clauses significantly neutralise the requirements for selection of teachers by competition, which becomes just one of the mechanisms for selection which works patchily, being undermined by the use of other possibilities.

Thus, the given procedure does not in reality provide such important factors in social protection as the guarantees of transparency, accessibility, and the selection of the best. It also contradicts the RA law on “General education” Article 24, clause 3 which requires that vacant positions for teachers in state EIs be filled on a competitive basis except in cases where there is a candidate with targeted specialised education.

The competition procedure is even more obviously contradicted by the RA ministry of science and education procedure for sending teachers on missions. According to that procedure, the regional (marz) administration presents its requirements for pedagogic employees. The RA ministry of science and education sends the specialist teacher who has applied to the ministry, to that school. In addition, the procedure does not stipulate what terms are applied for the selection of the specialist being detached. Only the following preferences are stipulated:

<sup>27</sup> RA Minister of Education and Science 2010 Order no. 1262-N

<sup>28</sup> RA Government 2002 Decision no.955-N

- Presence of qualification as a teacher
- Resident of the given marz
- Other documents confirming specialised knowledge

It is obvious that the mechanisms stipulated in the given procedure are much simpler than the two-phase competition. Further, the individual being detached receives a subsidy for transportation of property, travel expenses, monthly rental (10.000) and other living expenses (5.000). In other words, the specialist on a mission has two privileges compared to the one appointed by competition: avoiding the qualification requirements and receiving a subsidy. Under these conditions, the two, mutually contradicting legal acts regulating hiring make the concept of personnel management meaningless and not only cannot have an effect on the quality of personnel, but introduce discrimination between different categories of teachers.

Such a situation of course has its explanations in which the two different approaches to issues of efficient distribution of personnel and social protection clash. In the case of the first approach, market mechanisms and competition are considered sufficient guarantees to ensure the efficient distribution and quality of teachers. The other approach is based on the idea that vulnerable schools should enjoy state support, as a result of which market competitive relations will be edited to a certain extent.

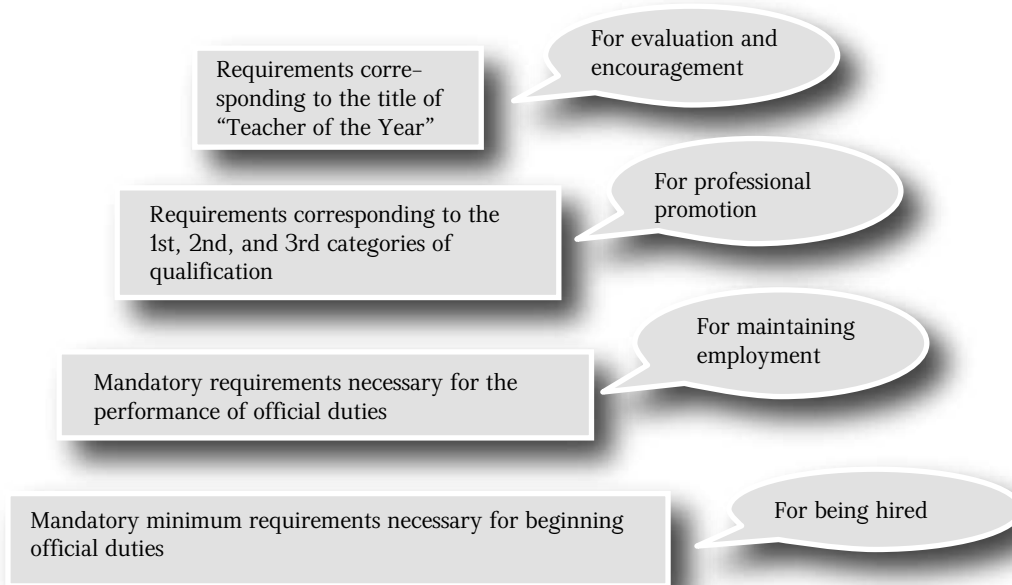
High levels of participation in the competition are to be expected in large, well-renovated schools and it is possible that that no one will take part in the competition in separate small village schools. This reality is the reason that those instances where, if the position for teacher has been vacant for more than three years, or if the competition has been announced but no selection is made and permission is granted for any teacher's workload to be increased at the cost of the workload of the vacant position, are taken into account in the competition procedure. The procedure is called upon to fill this gap. It encourages teachers to apply for work in schools in border, mountainous and high mountainous areas. Thus the additional privileges are set for teachers working in the given schools. As a result, in trying to regulate the efficient distribution of teachers and benefit their flow into vulnerable schools, the procedure for detachment pushes the issue of quality of pedagogic personnel to the background, and with that directly contradicts the competition procedure.

Consequently, as a result of the ambiguity and inefficiency in the legal field of hiring, the director's personal selection prevails.

**SUMMARY:** After the enactment of the law on "General Education" elements of management of teaching personnel have begun to be formed which should ensure the regulation of the procedure for hiring and the protection of the social rights of accessibility of work in the education sector. However, the functioning legal acts contradict each other and in the framework of a united approach they do not reflect the complex reality, breaching the social equal right for accessibility of work, leaving it up to the subjective will of the director.

### **b. Assessment of the substantive requirements presented to a teacher for being hired and working in teaching**

By substantive requirement, we understand the requirements concerning the education, knowledge, abilities and skills of a teacher. Substantive requirements are differentiated for being hired as a teacher, working in the position, advancement and encouragement of teachers. They can be represented by the following diagram:



The four levels of the pyramid are reflected in four different legal acts. The minimum and mandatory requirements are presented in the already-mentioned standard competition procedure for vacant positions for teacher in general education EIs (RA Minister of Science and Education 2010 Order no. 1262-N) and pedagogic job descriptions (RA government 2010 decision no. 1391-N). The requirements in these two legal acts are compared in the table below:

Mandatory characteristics		
	According to competition procedure	According to job description
Education	<ul style="list-style-type: none"> <li>a. Higher pedagogic education</li> <li>b. Higher pedagogic education and 5 years</li> <li>c. Pedagogic experience in the previous 10 years</li> </ul>	<ul style="list-style-type: none"> <li>a. Higher pedagogic education</li> <li>b. Middle level professional pedagogic education</li> <li>c. Higher education and 5 years of pedagogic experience in the previous 10 years</li> <li>d. Middle level professional education and 5 years of pedagogic experience in the previous 10 years</li> </ul>
Experience	Not required	In the absence of pedagogic education, 5 years experience
Knowledge of legal Acts	Not required	RA Constitution, 6 RA laws, Labour Code, Charter, other normative Acts, subjective Criteria
Psychological component	Not stipulated	Fundamentals of Psychology
Professional component	Corresponding to general education subject curricula	Not stipulated
Pedagogic component	Practical pedagogic skills	Theory of pedagogy, methodology of teaching subject <sup>29</sup>
Other	Not stipulated	Basic First Aid, rules for work safety, protecting the life and health of learners

<sup>29</sup> These two requirements are formulated in the following manner in RA government 2010 decision no. 1391-N, Art.4, chapter 7, clause 2, sub-clause b): “fundamentals of the theory of pedagogy and methodology” which must be understood as the fundamentals of the theory of pedagogy and the methodology of teaching subjects, as pedagogy is the science of teaching and methodology is the entirety of teaching methods and knacks based on certain principles and value orientations. In other words, pedagogy is a much broader and embracing concept than any given methodology.

It is obvious from the comparative table that the qualitative requirements in job descriptions are less than those stipulated in the competitive procedure. This is explained by the fact that job descriptions are given for teachers working in the schools. From the description, it follows that at present individuals with middle-professional education or higher non-pedagogic education are not prohibited from working as teachers. However the policy being conducted is such that the flow of new personnel to schools must transform the teaching structure in such a way that as a result only teachers with higher pedagogic education will be left to teach in schools. According to that requirement only individuals with higher pedagogic education or higher education and 5 years of pedagogic experience will apply for the first phase of the competition, and from a later point of view, taking into account the age shift, only candidates with higher pedagogic education will be applying.

It is important to note that the requirement in the RA law on “General Education” Art. 38, clause 5, according to which teachers with middle-professional education can only continue to work in schools until 2018, serves this purpose. Thus, the natural process is being speeded up by additional legislative requirements.

This policy has already brought its first results. The number of those having all forms of education in schools has decreased in the two years following the 2009/2010 academic year and the number of teachers with higher pedagogic education has increased by around 3.9%.

At the same time, this policy has the following indirect results:

- Some of the teachers with secondary, middle professional, incomplete higher education or non-pedagogic education without 5 years pedagogic experience will be dismissed from the school by 2018,
- Some of the teachers with secondary, middle professional, incomplete higher education or non-pedagogic education without 5 years pedagogic experience will continue their education at the pedagogic university.

This means that as a result of the policy being conducted around 20% of teachers will be deprived of work, or will invest their own means to maintain their present employment. In other

words, as a negative result of the reforms, more than 8.000 teachers will be left unprotected, forced to defend themselves by their own means.

It is noteworthy that under these conditions teachers between the ages of 30 to 59 who have a certain amount of work experience and may have incentives and ambition for advancement in their work will leave schools. In their place the school will be supplemented by teachers who are 60 years of age and of retirement age. In the last three years the number of teachers of retirement age, with one or two left before retiring, has increased by 38% compared to 2009/2010 academic year, or their specific weight in the total number of teachers has grown by 2%. Taking into account that the total number of teachers has grown by 0.6% in the last 3 years, this means



In the last 3 years the number of teachers of retirement age, with one or two years left before retiring, has increased by 38% compared to the 2009/2010 academic year, or their specific weight in the total number of teachers has grown by 2%

that teachers over 63 years of age have partially secured the maintenance and growth of the total number of teachers.

Unlike the educational requirements, the requirements stipulated by pedagogic job descriptions are more diverse and demand much more of the functioning teacher than the competitive procedure demands of candidates for positions as teachers. This means that teachers must acquire knowledge, abilities and skills during their employment that they did not have or had not been revealed at the time of their being hired. These include a fairly large number of legal Acts, knowledge of the rules for work safety and protecting the life and health of learners, psychological-pedagogic knowledge and basic first aid.

According to the table below, it is anticipated that the framework of professional knowledge of teachers should not undergo any changes, but the changes in their pedagogic knowledge and volume of skills is difficult to assess because of the difference in the conceptual formulation in the two documents. It is not clear which of those pedagogic skills are being demanded of candidates applying for teaching positions. However, if we assume that only the practical skills of the candidate are tested during the interview, then we can consider the requirement for knowledge about pedagogic theory to be an innovation. These requirements are presented in the following, concise form:

Education	a. Higher pedagogic education b. Higher education and 5 years of pedagogic experience in the previous 10 years
Experience	In the absence of pedagogic education, 5 years of experience
Knowledge of legal Acts	RA Constitution, 6 RA laws, Labour Code, Charter, other normative Acts, subjective Criteria
Psychological component	Fundamentals of Psychology
Professional component	Corresponding to general education subject curricula
Pedagogic component	Pedagogic skills, theory of pedagogy, methodology of teaching a subject
Other components	Basic First Aid, rules for work safety, protecting the life and health of learners

From the concise table we conclude that during his or her employment, the teacher must be focused less on the development of practical skills, the acquisition of experience, and the broadening of the sphere of professional knowledge, and more on the enrichment of theoretic knowledge, which contradicts the natural process of development of a teacher and creates additional workload, diverting the teacher from true pedagogic activities.

**SUMMARY:** The reforms being implemented in the management and development of quality of pedagogic personnel are aimed at setting the compulsory requirements of teachers and the creation of mechanisms to maintain them. However, the social interests of the teacher have not been taken into account in the processes being carried out. The ambivalence and inconsistency of the requirements presented place teachers in a position of physical losses and psychological pressures and deter young persons from pedagogy.

### c. Assessment of protection of employment and terms of advancement

With the objective of maintaining the necessary features for the execution of the duties stipulated by the description of pedagogic positions, the RA legislation on RA general education foresees the process of attestation for teachers.<sup>30</sup> Attestation aims to correlate the knowledge, practical ability, and skills of teachers to: 1) the position 2) the characteristics of the categories of qualification. In other words, the process of attestation ensures both the correspondence to the minimum requirements and the resolution of the problems of teachers' incentives and advancement in the general education sector.

In the previous section we compared the mandatory and mandatory minimum requirements presented to teachers. In this section we will try to refer to the maintenance of quality of teachers and the formal requirements for continuous growth.

The requirements are summarised in the table in Appendix I.

It is obvious from the comparative table that the maintenance of employment is built on the "democratic" principle of evaluation and presumes the practical application of knowledge, abilities and skills complying with job descriptions. Compulsory trainings for teachers before attestation serve the objective of maintenance and development of professional qualities. Effectively conducted trainings prevent the stagnation of teachers and play a significant role in guiding professional growth, which results in the maintenance and guarantee of the stable social position of the teacher.

Several important factors concerning the advancement of teachers must be mentioned:

- The system for advancement begins to function from the moment the relevant RA government decision goes into effect in 2010.
- Work experience plays a certain role in the advancement of a teacher. The opportunity for advancement is created after 3 years of experience has been gained.
- The categories of qualification are of a sequential nature and each subsequent one can only be obtained after receiving the previous one.

In the outline of the advancement system there is no reference to the educational degree of the teacher (Bachelor, Masters, and Researcher). The education level was rightly not mentioned in the requirements stipulated for the vacant teachers' positions because the minimum requirements for employment are mentioned. However, the level of education cannot be ignored in the subsequent processes in personnel management. Should it be ignored, the influx of personnel with high levels of education into the schools will not be encouraged and the employment of mostly teachers with Bachelor's degrees will be indirectly supported.

The sequential principle of acquisition of categories of qualification is also not in the interest of the teacher. It ignores the level of education of the young teacher as well as the practise and knowledge of the teacher with many years of experience. As a result of the application of the sequential principle, each teacher begins his/her progress from the first level, the first category of qualification in 2010 regardless of his/her many years of experience and merits. Amongst these teachers, there may be teachers with significant reputations, including those who have received the title of "Best Teacher."

Thus, in its present form, the system for advancement of teachers devalues experience and reputation in the pedagogic sector and creates unfair work conditions. This unfairness is particularly striking in the case of teachers with 10-14 years of experience, the numbers of which have decreased by 0.6% in the last 3 academic years.

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30 The process is regulated by the RA government decision no 1391-N



Those requirements that are stipulated for working as a teacher and granting 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> categories of qualification are presented in the table. Let us briefly refer to the contents of the demands for categories of qualification.

One of the tasks presented is the knowledge of Legal Acts. From the table, we can see inconsistency in the application of the task. The maximum knowledge is required in the job description for the position as teacher, however subsequently this requirement becomes weaker. Only knowledge of the RA law “On general education” and the Charter of the EI are required in order to obtain a category. The requirement does not grow more rigorous but remains the same across categories of qualification. At the same time it is obvious that in their work, teachers must deal with several other practical legal Acts, such as Subjective criteria, curricula and other academic and methodological subjects which are approved by the order of the Minister of Education and Science, and go beyond the RA law “On general education.” Besides legal Acts, annual methodological guidelines are published by the RA Ministry of Education and Science or its separate sub-divisions. However, knowledge of these is not checked during attestation or advancement processes. It is unclear as to why in this case knowledge about them is considered mandatory according to the job description and what the teacher should be guided by in the process of planning his activities and advancement. Therefore, the criteria at the base of evaluation do not comply with the true volume and nature of the work.

We meet a similar situation when we try to compare the requirements presented and the volumes of the exam work. According to the attestation procedure, the exam task of the qualification category must contain 50–90 questions in the following ratio:

1. Knowledge of the legislation –15%
2. Knowledge of Subject-specialisation 60%
3. Command of pedagogic knowledge 25%

However, it appears from the table that the teacher must make the most apparent development in pedagogic knowledge and skills. It is difficult to imagine that it is possible to ascertain the levels of all these abilities in 12–22 test questions, especially when amongst that number there are some which are of a marked practical nature (for example, the drafting of a lesson plan) and cannot be revealed by testing.

At the same time changes to the 2<sup>nd</sup> and 3<sup>rd</sup> categories, as far as the knowledge of specialisation is concerned, are not foreseen, whereas there are more test questions.

It is possible to assume that, in the interview, it is possible to check the correspondence of the teacher to certain tasks omitted in the test, but the format of the interview does not allow the presentation of any lesson plan whatsoever or the demonstration of applied experimental methods in the classroom or the demonstration of the development and dissemination of a method of nurturing.

The main requirements also cause uncertainty.

Thus, according to didactics, the existence of a lesson plan is a compulsory part of lesson preparation and every teacher who enters a classroom must have one. However this requirement is presented for the 1<sup>st</sup> category of qualification. Apart from that, the existence of a plan does not in itself reflect the quality of pedagogic activity in its entirety. Each lesson plan reflects the requirements of general pedagogic, psychological, physiological, sociological and taught subjects being realised in the lesson; general and specific teaching, nurturing and developmental issues are realised; teacher and pupil interrelate. In designing the lesson plan, the teacher deals with four interlinked factors: general school issues, curricular requirements, the degree of preparedness of the learners and the components of the lesson. The reflection of all this in the



The existing procedure for attestation does not refer to qualitative evaluations and does not differentiate the high or low level of pedagogic and professional preparedness

lesson plan is a very complex, comprehensive problem requiring a creative pedagogic approach. Therefore, how the teacher manages to combine all these issues during the lesson and practically demonstrate his/her knowledge cannot be understood merely from the existence of a lesson plan.

Thus, the existing procedure for attestation does not refer to qualitative evaluations and does not differentiate the high or low level of pedagogic and professional preparedness.

The same can be said about the requirement for mastery of the forms and methods of evaluation of the knowledge and skills of learners. It is difficult to imagine that a RA MoSE inspector or parents' council would give

a positive evaluation for a teacher who did not master the methods of evaluation, even if the teacher had no aims to achieve a category. Meanwhile this requirement is formulated in the requirements for a 1<sup>st</sup> category qualification.

The requirement in the job descriptions for knowledge of Basic First Aid, rules for work safety, and protecting the life and health of learners is not reflected in the attestation procedure at all.

We also consider it important to point out that pedagogy is the totality of teaching and nurturing. In the system of evaluation presented, the emphasis is on teaching and issues concerning nurturing and extra-curricular work have been ignored. And finally, it does not test the abilities of the teacher, and does not even provide for the traditional and, by today's criteria, unsatisfactory methods of evaluation such as self-reporting or conducting demonstration lessons. Modern self-oriented, pupil-centred methods in education such as practical games, master-classes, group activities and programmed supervision are also ignored. These methods of teacher evaluation have been totally ignored and or forgotten.

The above-mentioned allows us to assume that the functioning system of attestation and awarding of categories does not comply with the modern nature of pedagogic activities, does not reflect its true volume and it is/will be of a purely formal nature. Under such conditions the purpose of evaluation, as a means for protecting a teacher's employment, disappears.

**SUMMARY:** A system of evaluation of teaching personnel has been introduced, which is in itself a powerful means for the defence of a teacher's work. The stipulated compulsory training ensures the stability of the position and lasting professional development. However the drafted system is contradictory. It is not based on modern pedagogic and educational management theory and does not arise from the nature of pedagogic activity. All this secures injustice, unjustified workloads for the teacher and administrative caprices and psychological pressures.

## CONCLUSION

The issues presented and discussed do not exhaust all aspects of the protection of the standing and work of teachers. We have discussed the currently important and obvious issues. As a result of this discussion we have come to the conclusion that the changes that have occurred over recent years have had an impact:

- Teachers' wages have increased.
- Certain privileges for pensions and conditions for rest have been stipulated.
- The foundation for a pedagogic personnel management system has been laid

However, together with all this, the reforms being implemented in all directions have several overall shortcomings:

- Many legal acts are not coordinated and are of a contradictory nature
- The functioning legal acts do not completely reflect the current situation in the education sector
- The ongoing processes are not being looked at from the teacher's point of view
- The legal acts are not based on modern theory of pedagogy

As a result, it is not possible to consider the systems of financing and evaluating that education is also an important aspect of the social protection of the teacher. Therefore, education in general, the subject matter of textbooks, teaching methods, an ingrained value system, and the teacher's reputation also have an influence on the teacher's social protection as much as fair wages, evaluations, delineated privileges, and other types of state and non-state social protection have.

RA Government 2010 Decision No. 1391-N					
Appendix 4		Appendix 1		Appendix 5	
Compulsory requirements		Requirements for advancements			
Characteristics (1)	According to position description (2)	According to attestation procedure (3)	1st category of Qualification (4)	2nd category of Qualification (5)	3rd category of Qualification (6)
Education	a. Higher pedagogic education b. Higher education and 5 years experience in the previous 10 years	The same	The same	The same	The same
Experient	5 years experience, in the case of absence of pedagogic education	The same	3 years	5 years	7 years
Knowledge of legal acts	RA Constitution, 6 RA laws, Labour Code, Charter, other normative Acts, subjective Criteria	Is omitted	RA law on "General Education" and Charter of the EI	The same	The same

Appendix 1 (continued)

(1)	(2)	(3)	(4)	(5)	(6)
Psychological component	Fundamentals of Psychology		<ul style="list-style-type: none"> <li>a. Provides a comfortable environment, and a free and civilized atmosphere for communication</li> </ul>	<ul style="list-style-type: none"> <li>a. +</li> <li>b. masters modern approaches relating to the characteristics of age and psychology of learners</li> </ul>	<ul style="list-style-type: none"> <li>a. b.+</li> <li>c. resolves the individual psychological issues of learners</li> </ul>
Specialized component	In compliance to the general education subject academic programs		<ul style="list-style-type: none"> <li>a. exceeds the requirements of pedagogic education criteria necessary for teaching</li> </ul>	<ul style="list-style-type: none"> <li>a. +</li> <li>b. fully masters basic and related knowledge of the subject to be taught</li> </ul>	<ul style="list-style-type: none"> <li>a. b.</li> </ul>
Pedagogic component (didactics, methodology of teaching)	Pedagogic skills, theory of pedagogy, methodology of teaching a subject	Job description and opinion of advisory bodies and conclusion of inspectors concerning professional activities	<ul style="list-style-type: none"> <li>a. applies diverse methods</li> <li>b. ensures participation of learners during lessons</li> <li>c. drafts lesson plans</li> <li>d. masters the types and methods of learner evaluation</li> </ul>	<ul style="list-style-type: none"> <li>a. b. c. d.+</li> <li>e. applies modern technologies, takes the psychological characteristics of the learners into account when selecting methods</li> <li>f. drafts thematic units for lessons</li> <li>g. evaluates the learner's independent conclusions</li> <li>h. resolves pedagogic issues concerning the learner</li> <li>i. drafts thematic and other tasks</li> </ul>	<ul style="list-style-type: none"> <li>a. b. c. d. e. +</li> <li>f. applies research and experimental methods</li> <li>g. independently develops teaching and nurturing methods and disseminates them</li> <li>h. uses supplementary educational materials, informational and other sources, taking into account personal interests</li> </ul>



(1)	(2)	(3)	(4)	(5)	(6)
Self-development, training	Missing	Compulsory training	a. compulsory training b. personal specialized development	a. b. + c. personal development relating to trainings	a. b. c. + d. publishes scientific articles and reports e. realizes professional, targeted research
Other	Basic First Aid, rules for work safety and protecting the life and health of learners	Missing	Missing	Missing	Missing
Practical result		Missing	High level of knowledge and abilities	Ensures stable growth, participation in competitions and Olympiads	High level of knowledge and abilities
Form		Documentation	50-60 test questions and interviews	65-75 test questions and interviews	80-90 test questions and interviews

## Appendix 2

*Number of teachers according to age*

	2009/2010	2010/2011	2011/2012	2009/2010	2010/2011	2011-2012
Up to 25	2,271	2,246	2,256	5.5%	5.4%	5.4%
25-30	3,352	3,388	3,557	8.1%	8.2%	8.5%
30-34	4,320	4,005	3,841	10.4%	9.6%	9.2%
35-39	5,082	4,984	4,865	12.2%	12.0%	11.7%
40-44	5,554	5,409	5,379	13.4%	13.0%	12.9%
45-49	5,933	5,792	5,622	14.3%	14.0%	13.5%
50-54	6,308	6,196	6,165	15.2%	14.9%	14.8%
55-59	5,356	5,444	5,592	12.9%	13.1%	13.4%
60-64	2,768	3,348	3,642	6.7%	8.1%	8.7%
Over 65	568	590	838	1.4%	1.4%	2.0%

*Number of teachers according to marzes*

	2009/2010	2010/2011	2011/2012	2009/2010	2010/2011	2011-2012
Yerevan	10,662	10,503	10,832	25.7%	25.4%	25.9%
Aragatsotn	2,900	2,933	3,025	7.0%	7.1%	7.2%
Ararat	3,263	3,294	3,354	7.9%	8.0%	8.0%
Armavir	3,754	3,839	3,881	9.0%	9.3%	9.3%
Gegharkunik	3,723	3,713	3,789	9.0%	9.0%	9.1%
Lori	4,047	4,019	3,845	9.7%	9.7%	9.2%
Kotayk	3,708	3,312	3,327	8.9%	8.0%	8.0%
Shirak	4,116	4,176	4,042	9.9%	10.1%	9.7%
Syunik	2,507	2,493	2,487	6.0%	6.0%	6.0%
Vayots Dzor	1,061	1,074	1,090	2.6%	2.6%	2.6%
Tavush	2,071	2,046	2,085	5.0%	4.9%	5.0%

*Number of teachers according to experience*

	2009/2010	2010/2011	2011/2012	2009/2010	2010/2011	2011-2012
Up to 1	1,411	1,361	1,330	3.4%	3.3%	3.2%
1-4	3,724	3,801	4,138	9.0%	9.2%	9.9%
5-9	4,943	4,505	4,515	11.9%	10.9%	10.8%
10-14	6,367	5,833	5,639	15.3%	14.1%	13.5%
Over 15	25,067	25,902	26,135	60.4%	62.6%	62.6%

*Number of teachers of retirement age and pre-retirement age*

	2009/2010	2010/2011	2011/2012	2009/2010	2010/2011	2011/2012
Retirement	1,018	1,222	1,506	2.5%	3.0%	3.6%
1 year left	562	615	723	1.4%	1.5%	1.7%
2 years left	723	1,073	945	1.7%	2.6%	2.3%

*Number of teachers according to degree of education*

	2009/2010	2010/2011	2011/2012	2009/2010	2010/2011	2011/2012
Higher education	3,382	3,280	2,827	8.1%	7.9%	6.8%
Incomplete higher education	713	647	605	1.7%	1.6%	1.4%
Middle specialised	64	69	37	0.2%	0.2%	0.1%
Higher pedagogic	31,550	31,931	33,201	75.6%	77.1%	79.5%
Incomplete higher pedagogic	4,702	4,575	4,358	11.3%	11.1%	10.4%
Middle specialised pedagogic	786	657	500	1.9%	1.6%	1.2%
Secondary	209	158	173	0.5%	0.4%	0.4%

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## About HMF

The Hrayr Maroukhian Foundation was created in 2009 in the Republic of Armenia. It is committed to the development and advancement of public policy issues that espouse the basic values of social democracy through education, training, research, and regional and international cooperation.

The aims of the foundation are to contribute to and actively promote a comprehensive national, regional and international dialogue focusing on current political, economic and social developments and challenges, with a primary concentration on Armenia and the South Caucasus.

The foundation conducts studies and develops policies to assist the citizens of the Republic of Armenia in responding to the ever-changing political and social landscape both regionally and globally. The foundation also serves as a center to study the specific issues faced by newly independent states including democratization, labor rights, the absence of social justice, freedom of speech, foreign and security policies, current political and international events and developments as they pertain to the South Caucasus.



## About FES

The Friedrich-Ebert-Stiftung (FES) is a non-profit German political foundation committed to the values of social democracy. The foundation, headquartered in Berlin and Bonn, was founded in 1925 and is named after Friedrich Ebert, Germany's first democratically elected president.

Today, the FES maintains branch offices in over 90 countries and carries out activities in more than 100 countries.

The Tbilisi-based South Caucasus Cooperation Office coordinates FES' activities in Georgia, Armenia and Azerbaijan. In all three countries, the Friedrich-Ebert-Stiftung aims at fostering democracy, peace and social justice through political dialogue, education and research.

FES' partners include NGOs, academics and experts, journalists, parliaments, ministries and political decision-makers.



