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Technical Assistance for the Natural Stone Manufacturing and Marketing Support Centre in Bayburt

Bayburt Doğal Taş Üretim ve Pazarlama Merkezi

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Bayburt Doğal Taş
AB Projesi

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Executive Summary

Located in the Eastern Black Sea Region, Bayburt is one of the less developed provinces of Turkey. The province economically derives a considerable share of its added-value from agricultural activities including livestock and comparatively industrial production in Bayburt is very weak. Meanwhile, one of the very few opportunities that can be utilized to boost the economic growth in Bayburt is the rich natural stone reserves in the region.

Natural Stone Manufacturing and Marketing Support Centre in Bayburt, aims to increase the competitiveness of the sector particularly with regard to addressing evident skills shortages, management impotence, marketing deficiencies, financing issues, the limited awareness of business networks and of partnership opportunities, relatively low levels of exports in natural stone products. It also aims to increase the competitiveness of the small and medium sized natural stone enterprises in Bayburt in order to contribute to local economy.

The study has initiated benchmarking analysis of Bayburt and examining in detail various aspects, the research has provided a comprehensive picture of the current natural-stone sector in Bayburt and other selected regions.

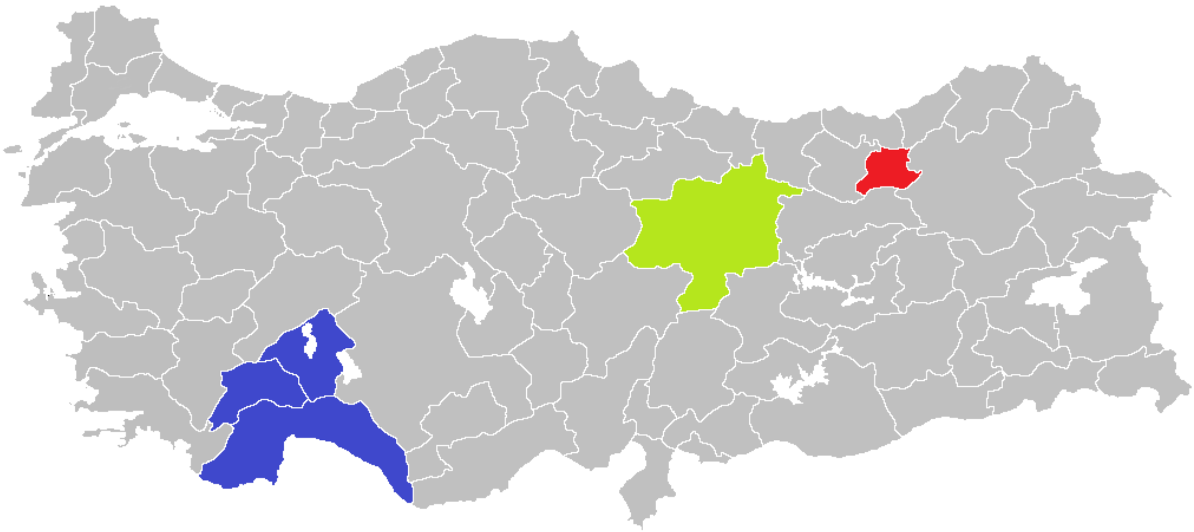
Benchmarking

Benchmarking Bayburt with Antalya-Burdur-Isparta and Sivas

In Turkey, there are approximately 1000 functioning quarries and more than 9000 workshops and 1500 factories processing the stone. Moreover, approximately 350.000 employees are working in the sector. Natural stone reserves in Turkey are spread over the country. 32 % of the reserves are in the Aegean Region, 26 % in Marmara, 11 % in the Central Anatolia and 31 % of the reserves are in the rest of the country, namely Eastern and Southeastern Anatolia, the Black Sea Region and the Mediterranean Region. Furthermore, Turkey is one of the most notable countries in the whole world in terms of marble, travertine and granite. The overall reserve of marble is estimated as 13.9 billion tons (nearly 5.1 billion cubic meters). According to the data General Directorate of Mineral Research and Exploration (MTA) reports, Turkey potentially has 5 billion cubic meters of marble. It is known that almost 35 % of the marble reserves in the world are located in Turkey. Balıkesir, Afyon, Bilecik, Denizli and Muğla produce %65 percent of total production. These cities followed by Bursa, Erzincan, Sivas, Antalya, Eskişehir, Kütahya, Bayburt, Elazığ, Manisa. (Ministry of Economy, General Directorate of Export, 2014). 90 % of the quarries are in the regions of Aegean and Marmara. Natural stone companies mostly located in the western part of Turkey.

Benchmarking is the process of improving performance by continuously identifying, understanding, and adapting outstanding practices and processes found inside and outside an organization. Benchmarking of Bayburt natural stone sector is needed in order to compare current situation of the sector, identify the needs and adapt itself to new practices. Among the other regions of Turkey Antalya-Burdur-Isparta and Sivas regions have been chosen for comparison with Bayburt for the following reasons. First reason is the existence of natural stone clusters in these regions. Existence of clusters in the regions increases quality of benchmark and helps to make solid analysis. Antalya-Burdur-Isparta region is a typical example of large scale natural stone cluster. Sivas region has also a natural stone cluster. Sivas region is located in an area that shows similar geographical trends and logistic infrastructure as Bayburt. Second reason is the existence of the data of the benchmark regions. In order to benchmark these regions latest data are needed. Antalya-Burdur-Isparta region and Sivas region have Development of International Competitiveness Support Programme (UR-GE) projects which provide the recent data needed. These regions can be benchmark regions for Bayburt.

Figure 1: Benchmarked Regions



From natural stones which are being exported, the highest added value products are marble and travertine. Marble is exported either in block form or in cut and polished form. Most important exporting market of the Antalya-Burdur-Isparta region is China for block marble. U.S.A is the most important destination for tile and slab formed marble. Net export revenue of the benchmark sample of Antalya-Burdur-Isparta is 359.247.094 TL. Net export revenue per company in the sample is 19.958.172 TL. United Kingdom, Saudi Arabia, Russia, India, South Korea, Israel, Singapore, Italy, Australia, BAE, Canada, Azerbaijan, Brazil and Qatar are other countries that Antalya-Burdur-Isparta region also exporting.

China is the most important export destination of Sivas region for block marble and U.S.A is the most important destination for tile and slab formed marble. Other exporting countries for Sivas natural stone sector are Germany, India, Indonesia, Saudi Arabia, Netherlands, Libya, Italy and France. Net export revenue of the benchmark sample of Sivas region is 28.983.136 TL. Net export revenue per company in the sample is 3.220.348 TL. Countries like Brazil, Ukraine, Singapore, Qatar and Poland are considered new potential markets for the companies in Sivas region benchmark.

Table 1: Exporting markets of benchmarked regions and Bayburt.

	Antalya-Burdur-Isparta	Sivas	Bayburt
China	√	√	√
India	√	√	√
U.S.A	√	√	
England	√		
Saudi Arabia	√	√	√
Russia	√		
South Korea	√		
Israel	√		
Singapore	√		
Italy	√	√	√
Australia	√		
Dubai	√		√
Canada	√		
Azerbaijan	√		
Brazil	√		
Qatar	√		
Germany		√	√
Netherlands		√	√
Indonesia		√	
Libya		√	√
France		√	√
Spain			√
Georgia			√

Block   Slab and Trimmed

**Export destinations of Bayburt are not perpetual, only one-time export destinations.*

Antalya-Burdur-Isparta region is exporting to more countries than other regions. Sivas and Bayburt have similar countries in their export markets. Although Bayburt has 11 exporting destinations and these markets are not perpetual. Export by Bayburt companies is mostly one-time only and therefore Bayburt companies are not experienced in foreign trade. Compared to the other two regions it is easy to say that experience of Bayburt is nearly zero.

In the following table Antalya-Burdur-Isparta, Sivas and Bayburt regions compared in 4 subchapters. Points given to the regions with respect to their relative position to each other.

Table 2: Diamond Benchmark of Antalya-Burdur-Isparta, Sivas and Bayburt

	Antalya-Burdur-Isparta	Sivas	Bayburt
Government Supports	√	√√	√√√
Priority of sector for local authorities	√	√√	√√√
Labor Market	√√√	√√	√
Production Infrastructure	√√√	√√	√
Logistics Infrastructure	√√√	√√	√
Presence of Supporting Institutions	√√	√	√
Institutionalization	√√√	√√	√
Experience in foreign trade	√√√	√	
Capital Stock	√√√	√√	√

1. Governmental supports: Incentive system of Ministry of Economy grouped cities of Turkey in 6 regions. According to this division Bayburt is region 5, Sivas is region 4 and Antalya-Burdur-Isparta placed as region 1, region 3 and region 2 respectively. Incentives are increasing while the region number is decreasing. It means Bayburt more advantageous than other regions. Another advantage of Bayburt is local authorities' attention for the sector. Natural stone sector in Bayburt prioritized by the local authorities. Bayburt has more advantage than other regions by means of governmental supports.

2. Supply conditions: This subchapter consist of labor market, production infrastructure and logistic infrastructure. Labor market is very limited in Bayburt and also it is hard to find skilled employees for natural stone sector. Sivas region has a slight advantage than Bayburt but labor market is not sufficient enough for natural stone industry in the region. Antalya-Burdur-Isparta region has most qualified labor force when compared to the other regions. Antalya-Burdur-Isparta region also has better production infrastructure than Bayburt and Sivas.

3. Supporting and related institutes: West Mediterranean Exporter's Association, Burdur Marble and Natural Stone Association, Denizli Mine and Marble Association, Mediterranean University are related and supporting institutes in the Antalya-Burdur-Isparta region. Sivas and Bayburt have relatively less institutions than Antalya-Burdur-Isparta region. Main institution in Sivas region is Sivas chamber of commerce. Special provincial administration is the leading institution in Bayburt region.

4. Firm strategy and structure: Capital stock of companies in Bayburt are too low. This also leads to low institutionalism in companies. Also companies in Bayburt are not participating in foreign trade much. Sivas region companies have better capital stock structure than Bayburt. Accessibility of capital stock increases overall institutionalism level of companies in Sivas. Companies of Sivas region involve in foreign trade more than Bayburt region but overall experience is not competitive enough. Antalya-Burdur-Isparta region companies have best capital stock structure and they are more involving in foreign trade than total of Sivas and Bayburt region. Higher experience in foreign trade bring more institutionalism to the companies of Antalya-Burdur-Isparta region.

Table 3: Benchmark Table of Antalya-Burdur-Isparta, Sivas and Bayburt

	Antalya-Burdur-Isparta	Sivas	Bayburt
Number of Companies in Sample Group	18	9	41
Average Number of University Graduate per Company (person)	12,7	3,66	0,17
Average Number of Foreign Language Speaker per Company (person)	4,39	1,66	0,02
Average Number Employees per Company (person)	155	37	8,84
Total Net Sales per Company(TL)	24.240.013	5.285.469	520.000
Turnover per Person (TL)	156.107	140.322	58.846
Net Export Revenue per Company (TL)	19.958.172	3.220.348	113.659
Registered Trademark per Company	0,66	0,33	0
Websites per Company	0,94	0,88	0,17
Patent/Utility Model per Company	0,11	0	0
Industrial Design per Company	0	0	0

Benchmarking Bayburt with Carrara

The Stone District of Carrara, Italy, with a turnover of around 900 million euro, represents the best example and the most worldwide known of the Stone World Industry; established at the time of Etruscans, the population who lived in Tuscany (Italy) before Romans, Romans boosted up that “industry” and “exported” their products all over the known world since that time; the Carrara’ District reached an outstanding position at the time of Michelangelo, the Artist who represents the change in the Art during the Renaissance; in the 60’ a blooming time pushed Carrara District to grow fast and to get the Worldwide Leadership position, which still remains for high “ADDED VALUE” products.

Figure 2: Carrara Region

The following table gives a picture of the outstanding results by the Carrara Stone District; particularly significant the turnover and export figures per employee when considering the stone enterprises only; it is worth mentioning that 80% of export is generated by the final processed products (slabs and related); the crucial reason for such a success is related to a couple of key words: high added value products and optimal integrated value chain.

Table 4: Benchmark table of Carrara and Bayburt

	Carrara	Bayburt	Carrara/Bayburt
Total Turnover	900 Mil €	7 Mil €	128,57
Export	482 Mil €	1.6 Mil €	301,25
Number of Enterprise	755	41	18,41
Number of Employees	4,892	362	13,51
Average Number of Employees per company	6,8	8,84	0,76
Turnover per Employee	225,000 €	21,000 €	10,71
Export per Employee	98,000 €	4,613 €	21,24

Bayburt and Carrara district companies have nearly same average number of employees which can be considered as small sized companies. For this reason, Carrara is a good example for benchmarking. Although the average number of employees per company nearly same Carrara districts has better numbers in export, total turnover than Bayburt. According to the numbers in the table we can conclude that added value of natural stone sector of Bayburt region is very low. Also companies in Bayburt do not pay any attention to export activities while Carrara companies is very good at exporting activities. Details which cause these differences explained in the related parts of the report. Solution proposal for increasing competitiveness of Bayburt region supplied in the conclusion part of the competitiveness assessment report.

Analysis of Competitiveness Pillars

Logistics and Accessibility

Logistics and accessibility are the most crucial components of natural stone industry because of the size of the transported material. Developed logistics infrastructure provides competitive advantage in the sector. Closeness to ports, railways and central highways decreases the transportation cost and time. Marble and Natural Stone producing provinces such as Denizli, İzmir, Antalya, Burdur, Isparta are close to the Ports which enable companies in mentioned provinces to easily transport their products. Logistics infrastructure and accessibility of the Bayburt region can be considered low when compared to the other regions. %82 of total net sales per company in the Antalya-Burdur-Isparta region is obtained from export. Number decreases to 60 percent in the Sivas region and 21 percent in the Bayburt region. Biggest three importers of natural stone and marble are China, India and Italy. In order to reach this potential market logistics and accessibility play a key role. Logistics infrastructure and accessibility are the competitive disadvantages of Bayburt. With the finalization of Gümüşhane and Erzurum roads and realization of airport project between Gümüşhane and Bayburt the accessibility of Bayburt will be increased.

Supporting Organizations, Cooperation and Competition (Coopetition)

Changing environment of business enforces companies to change their competitive structures. Coopetition allows companies to be more competitive in the global market. Marble and natural stone industry is mostly export driven because of difference between the location of raw material and market. In order to be globally competitive besides their rivalry companies should also develop cooperation. Presence of supporting organizations in the regions helps the process of value creation for the companies. West Mediterranean Exporter’s Association runs Ministry of Economy “UR-GE” project with marble and natural stone industry companies in the Antalya-Burdur-Isparta region. Sivas Chamber of Commerce and Industry and Denizli Exporter’s Association also run marble and natural stone industry “UR-GE” project in their region. It ensures companies to adapt coopetition. In addition to mentioned institutions below institutions like Burdur Marble and Natural Stone Association, Denizli Mine and Marble Association are creating added value for the natural stone and marble industry in the region. With the help of supporting organizations in the region companies can attend international trade fairs to create new sale opportunities and increase their market share. Supporting organizations and coopetition culture in Bayburt is not developed enough comparing to other regions.

Finance

Marble and natural stone industry needs high amount of financial investment. Cost of opening quarries and operating are also very high for companies. Therefore, accessibility to financial sources is very important for industry to continue its operations and invest in new equipment and facilities. Total net sales number per company of Antalya-Burdur-Isparta region is 24.240.013 TL which shows that accessing financial sources relatively easy when compared to the other regions. Sivas region has total 3.220.348 TL and Bayburt has 520.000 TL net sales per company. Financial structures of companies in Bayburt are not strong enough to cover new investments or renewal of machinery used. Antalya-Burdur-Isparta marble and natural stone companies can use their financial funds to cover new investment or modernization projects. Companies in Bayburt need financial support for their activities. Presence of Northeast Anatolia Development Agency Supports and other governmental supports is crucial for marble and natural stone industry in Bayburt whereas companies in other regions mostly use their own financial capital for necessary investments.

Labor force

Skilled labor force is needed in marble and natural stone industry. Average number of university graduated staff per company in Antalya-Burdur-Isparta region is 12,7. The number is decreasing to 3,66 in Sivas region and 0,17 in Bayburt region. Foreign language speaker per company distributes as 4,39 for Antalya-Burdur-Isparta region, 1,66 for Sivas region and 0,02 for the Bayburt region. Universities in Antalya-Burdur-Isparta region have related departments with marble and natural stone industry which supplies qualified workforce for the companies in the region. Sivas region also have related departments in order to supply qualified labor force. Bayburt University is newly founded and do not have natural stone industry related departments yet. This decreases the size of qualified labor force for the industry. Another downside of Bayburt region by means of labor force is Society Benefit Programme of Turkish Labor Agency. Creating relatively easy work opportunities for Bayburt labor market is prohibiting marble and natural stone companies to find needed workforce. It also increases the cost of workforce in the region and this negatively effects competitiveness of local natural stone industry.

Institutionalization

Reputability and reliability of a company is related with its institutional structure. Institutionalized companies tend to be more successful in marketing and sales activities. Companies found in Antalya-Burdur-Isparta region have 0,66 registered trademark per company. In Sivas region this decreases to 0,33 per company and in Bayburt region number is zero. Another indicator that shows institutionalization level of a company is the website. Website per company in the regions distributes as follows. Antalya-Burdur-Isparta region has 0,94 websites per company which means nearly all companies in the sample have a website. Sivas region has 0,88 websites per company and Bayburt region has 0,17 websites per company. Comparing the patent/utility model numbers of regions Antalya-Burdur-Isparta region has 0,11 patent/utility model per company. Sivas and Bayburt region companies have no patent/utility model. There is not any industrial design of companies in all three samples. Low institutionalization of Bayburt companies limits the marketing and sales activities and therefore decrease the chance of expanding their market volume. Another indicator of institutionalization level of a company is quality and quantity of its staff. As mentioned in the labor section Bayburt natural stone industry has the least qualified staff when compared to the other regions and consistent with that institutionalization of Bayburt companies are low.

Innovation

In order to compete in changing business environment companies must be innovative. Innovative companies drive out non-innovative companies from the market. Natural stone companies in Antalya-Burdur-Isparta region are eager to follow new developments in the sector. Individually and collectively companies attend international fairs to promote their products, expand their markets and follow innovations in the sector. Companies in the Antalya-Burdur-Isparta region are more aware of governmental supports and use of them. Following of web-based information about sector is also very common in the region. Companies in the Bayburt natural stone industry are less aware of governmental supports when compared to the Antalya-Burdur-Isparta region. It is not very common to use incentives even though Bayburt is placed in the region 5. Bayburt natural stone industry companies are not participating to the fairs. Last fair attended was İzmir International Natural Stone and Technologies fair in 2007. Following of web-based information about sector is also very limited due to absence of information technology systems of the companies in the industry.

Altogether input conditions of the natural stone companies of Bayburt are not enough to support innovative activities.

Productivity

Production productivity of natural stone and marble is depending on machinery used and labor force quality. Use of outdated equipment decreases the productivity of natural stone and marble industry. Antalya-Burdur-Isparta region has better equipment and skilled labor force to use this equipment. Bayburt natural stone and marble companies do not have new machineries to work more efficient therefore productivity of Bayburt companies are very low. Comparing the turnover per person between three sample regions Antalya-Burdur-Isparta has 156.107 TL, Sivas region has 140.322 TL and Bayburt region has 58.846 TL. Numbers of turnover per person are consistent with the labor force structures of the regions. Labor force of Bayburt natural stone industry is less qualified when compared to Antalya-Burdur-Isparta and Sivas region.

Conclusion

Bayburt natural stone sector companies are very low in several business related capabilities. In this respect, current potential of Bayburt companies in terms of providing raw materials and marketing capacities is definitely very low comparing to the benchmarked regions.

Human resource capabilities of the Bayburt region are also very low when compared to the benchmarked regions. Bayburt University is newly founded and do not have natural stone industry related departments yet. This decreases the size of qualified labor force for the industry. Another downside of Bayburt region by means of labor force is Society Benefit Programme of Turkish Labor Agency. Creating relatively easy work opportunities for Bayburt labor market is prohibiting marble and natural stone companies to find needed workforce. It also increases the cost of workforce in the region and this negatively effects competitiveness of local natural stone industry.

Market logistics and accessibility play a key role on competitiveness of a region. Logistics infrastructure and accessibility are the competitive disadvantages of Bayburt. With the finalization of Gümüşhane and Erzurum roads and realization of airport project between Gümüşhane and Bayburt the accessibility of Bayburt will be increased. Currently Bayburt is far behind the benchmarked regions. Logistics infrastructure of Bayburt should be improved.

Companies in Bayburt need financial support for their activities. Presence of Northeast Anatolia Development Agency Supports and other governmental supports is crucial for marble and natural stone industry in Bayburt whereas companies in other regions mostly use their own financial capital for necessary investments. In order to be competitive in both national and international markets companies of Bayburt need strong financial capabilities.

Overall competitiveness of Bayburt is relatively low when compared to the benchmarked regions. Solution suggestions to increase competitiveness of Bayburt region analyzed in the competitiveness assessment report. Competitiveness assessment report is a good source for detailed information.