2. METHODOLOGICAL APPROACH

2.1 INDICATORS FOR MEASURING THE IMPACTS OF THE MEASURES

A complete system of evaluation indicators for each intervention category included in the Regulation, was prepared. This system comprises 5 categories of indicators for interventions relating to supply arrangements and support for local production, namely: A. Financial Indicators, B. Physical Index Indicators, C. Capacity Indicators, D. Effectiveness Indicators, and E. Impact Indicators.

This is an integrated recording system, providing in simplified form all the information needed to monitor the progress of implementation of the Regulation, to correlate it with economic and productive data for the islands and to estimate the initial results of its implementation.

A. INDICATORS FOR SPECIFIC SUPPLY ARRANGEMENTS

With regard to the indicators that were finally selected in addition to the financial component, we note (and this applies particularly to the physical indicators) the necessity of recording not only the quantities subsidised (supply category) but also the number of certificates issued (indication of the degree of fragmentation of subsidised support) and the number of suppliers (systematisation of supplies).

The capacity indicators are intended to be used to compare the quantities subsidised with local consumption and the amount of the subsidy with the price of the product on the local level. The ultimate aim is to estimate subsidy range in relation to local consumption and price levels.

Effectiveness indicators mean the percentage of quantities that are finally absorbed in relation to the forecast balances (supply category).

The impact indicators were intended to help estimate the impact of supply support on the development of final product prices and consumption, in conjunction with those administering subsidies under the Regulation within the local Directorates and in conjunction with selected surveys of consumer prices carried out by the Greek National Statistics Service on the local level (for certain products, at least).

B. INDICATORS FOR THE EVALUATION OF SUPPORT FOR LOCAL PRODUCTION
The physical object indicators in this category refer mainly to acreages and number of animals subsidised, as well as to the number of beneficiaries (diffusion of interventions).

The capacity indicators correlate subsidised acreages or number of animals with the corresponding total figures in the reference areas, in order to estimate the scope of the support interventions.

The effectiveness indicators correlate the final values of the physical object with the initial quantified targets – if any.

The impact indicators are intended to help assess the impact of subsidies for local products on maintaining local production, on the income of producers and the conditions in which they exercise their occupations. The estimate of impact was carried out in collaboration with cadres from the Agriculture Directorates and from the production data processing services.

C. INDICATORS FOR THE EVALUATION OF DEROGATIONS APPLICABLE TO STRUCTURAL MEASURES

The evaluation task force drew up a system of indicators for improvement plans in the Aegean islands receiving extra support, on the basis of data from the Directorate of Agricultural Applications. The system includes the following categories of indicators:

- General indicators, such as size of budget by improvement plan, distribution of plans by age group, etc.
- Distribution of improvement plans by category of orientation of agricultural exploitation.
- Distribution of improvement plans by type of investment planned.

2.2 FIELD SURVEY FOR THE ASSESSMENT OF REGULATION 2019/93 MEASURES

The evaluation team carried out a field survey in the area of implementation of the Regulation in order to establish the effectiveness of each measure, the degree of relevant information of the local population, the respect of formal obligations on sales documentation, and the proposals of persons involved into the implementation.

- First, a special survey was carried out in four insular towns (Syros, Rhodes, Chios, Mytilene) in order to assess the implementation of supply measures. Success and failure factors have been examined as well as the impact on the level of product prices and the indications about passing on the aid to the final consumer.
The product transportation cost has been estimated in detail for each product from continental Greece to the four destinations. A number of on-the-spot-checks was conducted on sale points as well a number of interviews with beneficiaries of the Regulation. The survey results are presented at Chapter 3.2 (THE STRUCTURE OF THE LOCAL MARKET FOR PRIME COMMODITY PRODUCTS-RESULTS OF THE IMPLEMENTATION OF THE SUPPLY MEASURES AND THEIR PASSING ON TO THE CONSUMER).

- A detailed questionnaire has been completed by the relevant local Directorates in six head-towns (Syros, Rhodes, Chios, Mytilene, Kavala, Alexandroupoli). The questionnaire reflects qualitative assessment of Regulation measures by the personnel involved in their implementation. The results are highlighted at chapters 3.2, 4.2 and 4.3 (ASSESSMENT OF R. 2019/93 MEASURES AT LEVEL OF AGRICULTURAL DIRECTORATES).

- For a complete description of the monitoring system of the Regulation and the relevant difficulties, a number of work sessions with four Directorates of Agriculture were conducted in towns of Syros, Chios, Rhodes, and Mytilene. The results of this work are presented at chapter 6 (EVALUATION OF PUBLIC ADMINISTRATION AND MONITORING).

2.3 BEHAVIOR OF FINAL CONSUMER PRICES (STATISTICAL APPROACH) AT A REGIONAL LEVEL

In our investigation we shall try to analyze and see whether and to what extend local market conditions in the Aegean region, that are not related to the actual production and transportation costs, affect the determination of final consumer prices of the specific products covered by the Regulation. In other words we will try to see whether cost factors and in particular transport costs, which are expected to be related to the implementation of the Regulation, play a decisive role in the determination of final consumer prices, or if consumer prices are mainly determined by local market conditions (in the case that the latter applies we are lead to the conclusion that the impact of the Regulation on the socioeconomic fiber of the Aegean Islands is rather trivial).

The methodological approach for the evaluation of the impact of the Regulation on prices moves along two broad, though interrelated directions, as follows:
• In the first, we have collected and evaluated all useful quantitative information on final consumer prices for each particular product, expected to be benefited from the implementation of the Regulation in the Aegean Region. As expected, the necessary quantitative information is both fragmented and not always available nor fully reliable.

More particularly, our methodological approach, which is intertemporal and comparative is the following:

a) We have collected all available, quantitative data on the pattern of behavior of final consumer prices for each particular product.

The quantitative analysis covered the following specific products:

• Flour
• Sugar
• Cow’s Yogurt
• Sheep’s Yogurt
• Note that fresh vegetable was not analyzed for a number of reasons.

Firstly, because there was effectively no absorption of funds from the Regulation for this category. Secondly fresh vegetable is particularly heterogeneous, consisting of a great number of different kinds, thus becoming extremely difficult, if not impossible, to figure out their exact “price” and to pinpoint price differences between regions. Besides, their prices very much affected by weather conditions and they exhibit abrupt variations on a daily basis.

• Note finally that feeding-stuffs are not dealt in this analysis, since they are not final products. Feeding-stuffs are dealt in the analysis of the wholesale prices.

The main source of information for the statistical analysis is unpublished, though official, data from the National Statistical Service of Greece (NSSG) over the period 1992-98. Statistical information is available only for the islands of Lesvos and Chios, which were taken as representative cases of the Aegean Region in our quantitative analysis.
b) Also, we have collected the corresponding information of the Athens-Piraeus area. We then compared the behavior of final consumer prices between the Aegean Region (i.e. Lesvos and Chios) and the Athens-Piraeus Area. This gives us a first indication of any differences in price behavior between the two regions.

c) In addition, we have collected similar information for other Greek Regions not covered by the Regulation, such as Crete, Corfu, Kalamata and Komotini, aiming at detecting the pattern of final consumer price behavior in those regions. These results were systematically compared to those of the Aegean Region as well as to the Athens-Piraeus Area. This gives us a further and fairly sound indication of the formation of consumer prices in local markets at a regional level.

d) In relation to the above two points should be made:

- The quantitative regional price data used is based on a limited sample and therefore price differentials should be looked at with particular attention. However, analyzing price developments over an adequate time span in conjunction with the analysis at regional level the possible sampling errors tend to be minimized.

- Our analysis is carried out at a very detailed product level (as detailed as possible). The NSSG sampling and price collection method refers to products of the same make. Therefore price differences do not reflect differences between “product makes”.

e) The analysis was enriched from the results of the case studies markets, aiming at evaluating their particular characteristics, such as the role of pricing and marketing policies and the role of product differentiation, the effect of transport cost on consumer prices, the conditions of market competition and the role of price subsidization under the Regulation.

Once this investigation was carried out we got an understanding of how prices are determined, we could draw conclusions on the impact of the Regulation on final consumer prices, using the particular results drawn at each stage of our analysis.
Results from this survey are presented at chapter 3.3 (PRICE DETERMINATION MECHANISMS - COMPARATIVE ANALYSIS BETWEEN AEGEAN ISLANDS AND THE MAINLAND)

2.4 DATA & STATISTICS

2.4.1 STATISTICAL RESEARCH DATA COLLECTION, (MEETINGS & INTERVIEWS)

The task force of the evaluation team had meetings with all competent Directorates and Departments of the Ministry of Agriculture, for each product subsidized by the Regulation.

1. SPECIFIC SUPPLY ARRANGEMENTS

For each product financed under the Regulation the following data were inquired:

i. Number of certificates and quantities financed under the REG. For the years 1993, 94, 95, 96 – according to destination island.

ii. Number of beneficiaries.

iii. An estimate of the transportation cost and its correlation to the aid granted for each one of the group A or B of islands.

iv. An estimate of the balance of local production and local consumption needs.

v. Estimate and controls regarding the passing of the aid to end-user.

vi. An account of checks, audits and controls performed by the relevant Directorates of Agriculture.

vii. Any data concerning the process of implementation of the Regulation and any recommendations for improving it.
More specifically, the following interviews were carried-out:

a. **Yoghurt** (Ministry of Agriculture)
   We discussed difficulties of implementing the specific supply arrangement concerning yoghurt and response of trade organizations and whole salers. Specific mention was made on the relevant high cost of special labelling required, especially with regard of the low rate of aid in terms of product value and the difficulties in passing the aid to final consumer.
   No data regarding quantities, absorbance, etc. by island or prefecture are kept in this Directorate.

b. **Fruits – vegetables and potatoes** (GEDIDAGEP)
   In this Directorate there was no available data. It was noted that during the last 3 years there isn’t but a very small absorbance in potato products only.

c. **Flour** (GEDIDAGEP)
   The relevant data on quantities absorbed is kept in this department according to local Directorates of Agriculture for the years 1994, 95, 96, 97, 98 (i.e. by prefecture and not at individual island level). These data were handwriting and difficult to be elaborated.

d. **Sugar** (GEDIDAGEP)
   In this Directorate we were able to find data regarding quantities and No of certificates by island for the years 1995, 96, 97, 98 (For the year 1994, only data on certificates published).

e. **Animal Feeding – stuff** (Ministry of Agriculture)
   The relevant data quantities absorbed is kept by Prefecture (local Directorate of Agriculture) for the years 1995, 96, 97, 98. For the same years, there are also estimated balances for the needs of each prefecture and transportation costs (in 1993 prices) between ports.
   There was a detailed discussion on the actual factors that determine transportation cost in groups A and B of islands – as well as the methodology of estimating needs and balance of feeding-stuff in each island (livestock population, local production, etc.).

### 2. MEASURES TO SUPPORT LOCAL PRODUCTS

For each product financed under Title II of the Regulation, the following data was enquired:
i. Number of applications submitted / approved and quantities subsidized per island under the Regulation for the years 1993, 94, 95, 96.

ii. Constrains imposed by the Regulation for approval of applications in each specific product and the relevant problems that may arise from these constrains.

iii. Required aid in relation to the ceiling imposed by the Regulation – where applicable.

iv. Production costs of products financed under the specific measures and the contribution of the aid to this cost.

v. Reports on checks and controls carried out by the competent Directorates of the Ministry of Agriculture.

vi. Any relevant data concerning the implementation process of the Regulation and any suggestions and recommendations for improving it to the benefit of the producers.

More specifically the following interviews were carried-out:

a) **Stock farming** (Ministry of Agriculture)

   Main points of the discussion:
   
   • Problems that arise from the constrains imposed by the Regulation (0.5 he per suckler cow and 0.3 he per male bovine animals), which are not the usual case in many Aegean islands.
   
   • Problems that arise from the shortage of personel in local Directorates of Agriculture, regarding controls and monitoring of the programme.

b) **Milk products** (GEDIDAGEP)

   The following points were finalized:
   
   • Data on private storage of certain local cheeses by island, type of cheese, days of storage, quantities (TN) and number of approved applicants, for the periods 1994-95, 1995-96, 1996-97, 1997-98, 1998-99.
   
   • Contribution of aid to the cost of storage of cheese

c) **Fruits, vegetables & flowers**

   There was no data to work out concerning this specific measure, because the measure was not applied
d) **Potatoes** (Ministry of Agriculture)

The following points were finalized:

- Statistical data (number of applications approved, number of hectares being subsidized by the Regulation) by prefecture (Local Directorates of Agriculture), for the years 1994, 95, 96, 97, 98.
- No specific data concerning potato seed.
- There where no data available concerning production costs of potatoes.
- Problems that arise regarding the constrain of minimum 0.5 he, imposed for financing under the Regulation – which is considered as a rather limiting factor with regard of the small size of the farms in the Aegean islands.

e) **Wine sector** (Ministry of Agriculture)

- Concerning quality wines psr the following were pointed out:

- Number of hectares financed for the continued cultivation of specific wine varieties, per island for the periods 1993-94, 1994-95 and 1995-96.
- Production costs and the contribution of the aid to it.

f) **Olive groves** (Ministry of Agriculture)

The following points were discussed:

- Problems and difficulties related to the type of works required for olive production under the conditions prevailing in the islands.
- The constrains set-out by the Regulation (well organized olive groves with a density of 80 trees per hectare).
- The difficulties of controls by the local Directorates of Agriculture – due to the small size and large number of the farms.
- The cost of olive oil production in the islands as compared to the cost in the mainland country.

g) **Honey** (Ministry of Agriculture)

The following were finalized:

- Data concerning the number of hives financed by the Regulation, by the prefecture, for the years 1996, 97, 98.
- The ceilings of the measure in relation to actual demand / quantities required.
- Constrains regarding specific quality honey (high thyme honey).
- Promotion and marketing initiatives.
3. DEROGATIONS APPLICABLE TO STRUCTURAL MEASURES

The case of derogations applicable to structural funds seems rather more complicated than the case of supply arrangements. Data of individual investment plans are kept only at prefecture level, and it is very difficult to identify data at specific islands, let alone the fact that even this data is not provided at a regular basis to the Central Information System of the Ministry of Agriculture (Cyclades, Samos).

This is especially difficult for the case of Improvement Plans (Reg. (EEC) No 2328/91).

The evaluation team succeeded to get a survey carried out by the Programme Manager of the Operation Programme for the Agriculture (1994-99) which was kindly granted for the purpose of the evaluation. In this report there is data for each prefecture for the years 1994, 95, 96, 97 according to the orientation of the investments budget, age – sex – experience of beneficiaries and type area (urban / rural).

2.4.2 DIFFICULTIES ENCOUNTERED IN STATISTICAL RESEARCH

The evaluation team had systematic collaboration with the services of the Ministry of Agriculture (particularly GEDIDAGEP and the Information System department) in order to ascertain the possibility of retrieving data on the application of the Regulation on the individual island level, to allow us to establish figures for the various classifications we were using (tourist destinations, non-tourist destinations, islands close to the mainland, islands with well-developed agricultural sectors and significant permanent populations).

Here we must mention the tremendous difficulties we encountered, owing to the lack of flexibility in the data system used by the Ministry of Agriculture and the lack of provision for the possibility of seeking information under other classifications than the usual designations of islands as A or B class.

The excellent collaboration we enjoyed with the staff of the Information System department, most notably Mr Alifranghis, proved profitable up to a certain point, namely that we were able to retrieve information about payments per island, but only for cases where payments to beneficiaries were made on the island itself; **it was not in other words possible to identify payments to island beneficiaries which were made in other areas, particularly in Attica.** According to the initial print-outs from the Information System department’s data system, made once the 6-digit payment
codes identifying the Regulation by island and by prefecture had been found, a particularly large number of payments were made in Attica, where, however, it proved impossible to identify the discharge point for payments relating to supply or the addresses of beneficiaries of subsidies for local production. In the first instance (supply), a large number of beneficiaries were commercial firms registered in Athens; as for the second (local production), in most cases the Agricultural Bank appeared as the intermediary, but as a rule there was no record of the particular branch or even the general area. At this point we must notice that, after the systematic collaboration with the Information Department of GEDIDAGEP, the geographical destination of payments of the Agricultural Bank was achieved. After that, the task force had data of payments by Prefecture but on a level beyond that (by island) the data collection was impossible.

A deeper and more thorough investigation into actual data of the relevant Directorates of the Ministry revealed that what is missing is a well-organized data collection and processing information system. It is extremely difficult to compare data from various sources (Ministry of Agriculture) – as they are being kept (listed) in many different ways: No of certificates acquired, No of certificates published and / or implemented, payments, and ad hoc geographical destination by prefecture, or island, or group A/B type island depending on the person in charge of each specific measure / product – and in most cases in hand writing(see Annex 1 : Comparative Presentation between data of the Ministry of Agriculture and GEDIDAGEP).

The most reliable and well-organized data system was considered to be the Information System of the Ministry of Agriculture that records the payments, but after reviewing all data given to us we realized that:

Payments are very often delayed and discrepancies are observed in relation to the ministry’s of Agriculture data regarding certified quantities forwarded to the islands, within a specific period.

In this respect, it was impossible to trace supply arrangements by island - according to our proposed typology in our methodology.

The Regulation was therefore evaluated as a whole and down to the prefecture unit – for the five main prefectures of N. and S. Aegean regions (Dodecanesse, Cyclades,
Lesvos, Chios, Samos), as well as for the small close to mainland islands (Samothraki, Thasos) with data of payments to the end-users.

Data that was used for this evaluation was based on annual payments (Information System of GEDEDAGEP, Ministry of Agriculture), and not on implementation figures.

This approach was considered as more appropriate for the particular task of estimating geographical distribution of the aid at prefecture level, and also for the reason that it presented integrated data on an annual base. The follow-up system used by the Ministry of Agriculture (approved certificates)-albeit consistent at product level, presented difficulties in homogenizing data for the evaluation (different time periods for each product-lack of data at prefecture level).