

The REFRAME perspective – compliance with the UN 2030 Agenda for Sustainable Development and the Paris Agreement on a Climate Change Action Plan

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In September 2015 the United Nations formulated and agreed upon a global vision defining a set of 17 sustainability development goalsⁱ. Coming into force January 2016 a period of 15 years – until 2030 – was defined for all countries to mobilize their efforts and define milestones to achieve these goals. Goal No. 13 is *Climate Action*, and in Paris in December 2015 an agreement was achieved defining an action plan with the ambition to keep the increase in average global temperature ‘well below’ 2°Cⁱⁱ.

In light of the rapidly increasing number of reports showing evidence of alarming climate changes already taking place and rapidly accelerating, climate changes have been recognised as the ‘threat multiplier’ⁱⁱⁱ adversely affecting the conditions of other Agenda 2030 goals.

Development initiatives globally should be assessed for compliance with the 2030 agenda and, in particular, with the Paris Agreement on climate change actions. In this report we do so for the REFRAME project and we discuss potential synergies and complementarity with other EU NSR Interreg projects.

Compliance of REFRAME with UN Agenda 2030

Industrialisation of agriculture and globalisation of the infrastructures of food production often leads to depopulation and impoverishment of large and small rural areas, districts and regions. This process is the main driver of urbanisation where the population increases dramatically in the largest cities in most if not all countries in the world. Project REFRAME was initiated to counteract this development, and this concept is in compliance with Goal 11, *Sustainable cities and communities* of the UN 2030 agenda.

The objectives of the REFRAME project are to re-develop local infrastructures of food production, food processing, food consumption and branding of rural communities. The potential beneficial effects in rural communities are many. These include:

1. increase in the economic value added in the many steps from field to fork,
2. increase in local occupation and inward-migration of highly qualified individuals,
3. diversification of food qualities through production being adapted to local conditions and traditions and, hence,
4. development of methods of more sustainable food production.

While effect Nos. 1 and 2 are directly related to a gain of economic value and re-population in rural communities (Goal 11, *Sustainable cities and communities*), effect Nos. 3 and 4 are compliant with Goal 12, *Responsible consumption and production* as well as with Goal 13, *Climate action*.

It should be stressed that the four effects are interrelated. They support each other and are prerequisites of each other. Processing of food requires qualified individuals, and in-migration of

labour requires vacant jobs. If either one of the two becomes a bottleneck, neither of them will be successful. Likewise, unique qualities of adaptive food production and methods of more sustainable production, where high nutrient values are produced with reduced environmental and climatic impact, will become key marketing parameters of products from rural communities that will serve as living labs of the future food landscape.

Compliance of REFRAME with the Paris Agreement on *Climate action*

Appreciating that *Climate action* is to become a main focus of international co-operation this century, *Climate action* should also be the focus of the REFRAME compliance assessment.

The REFRAME approach creates a dramatic reduction in the transportation of raw materials and products compared to transportation in the global infrastructure of industrialised farming and food production. This has the potential to result in a significant reduction in CO₂-emissions. However, in spite of reduced transportation, local food production does not necessarily result in a reduced emission of greenhouse gases compared to that of large-scale rational production. Thus, the establishment of local infrastructures has to be linked with other innovative initiatives of food production. Facilitating the development among food small- and medium-sized enterprises (SME's) of such innovative principles is where REFRAME could – **and should** – play its most significant role!

Visionary individuals who have the ambition to make a difference in the world and are establishing a food enterprise based on a good idea often cannot - like a producer in the industrialised sector – deliver a highly specialised product at the barn door to be picked up by a truck and further processed and marketed elsewhere in the world. It means that for an individual to pursue a vision and idea of food production she or he has, in addition, to invent and develop all the necessary infrastructure from farm to fork for that particular enterprise.

Thus, unlocking the innovative potential of a food SME is seriously hampered by challenges that have developed into extremely high barriers due to the strength of the infrastructure of industrialised farming and food production. Breaking down these barriers is the objective of REFRAME, and one additional beneficial effect of that objective is the giving birth to - and screening of a significantly increasing number of good ideas at the earliest stages of development. REFRAME has the potential for allowing and accelerating the growth and development of the innovative potential of good ideas in sustainable food production.

Complementarity and synergy between REFRAME, SalFar and PROWAD Link

REFRAME is dealing with the challenges of local food SME's in a very broad sense, and a large variety of activities has been reported on the project Online Resource Centre (ORC)^{iv}. The development of distribution logistics is a major activity in REFRAME as described in a variety of reports on the ORC. The linkage between food production and local identity is another component of REFRAME, and terroir-based branding principles are among the activities reported,^v and ^{vi}.

Project SalFar^{vii} has a focus on coastal regions, building on the pioneering research on salt tolerant and halophilic plants initiated by a farmer on the Dutch Wadden Sea island of Texel^{viii}. SalFar focuses on adaptive agriculture and farming on saline soil. Degradation of farmland due to sea level rise is accelerating in the world and is expected to become a major problem in the North Sea Region this century. However, larger landscapes such as the marsh lands affected by salinity at present are almost all designated Natura 2000 habitats and can only be used for pasture. Areas of saline soil that are cultivated can and will be found in the North Sea Region during project SalFar, but none of them is expected to represent large cohesive landscapes. This means that initiatives developing saline

farming most likely is to be initiated by small innovative food producers in widely separated locations in coastal areas. Hence, challenges will be very much identical to those dealt with in REFRAME and one work package of SalFar (WP5) was formulated in line with REFRAME activities linking saline adaptive agriculture with documented unique qualities in the resulting food commodities and increased sustainability of production. Activities on terroir-based branding and other principles of evidence-based marketing was build on top of this documentation.

The focus of project PROWAD LINK^{ix} is three coastal natural heritage sites, Wadden Sea, the largest cohesive biotope¹ of the North Sea Region, Geiranger Fjord, and the Wash & North Norfolk Coast. The mission of the project is to link conservation of these environmentally important biotopes with sustainable economic growth in regional communities. One of the aims is to liberate the potential of exploiting brands of nature heritage in development of tourism and other products from the locations. Projects REFRAME and SalFar could significantly contribute to the aspect of sustainable food production in target regions of PROWAD LINK.

As briefly reviewed, there are significant overlaps between the three NSR Interreg projects and potentially strong synergies between them. Together, they could represent an interesting case on how Interreg projects can learn from each other in stead of copying activities from each other and, by copying, causing competition bias against interventions initiated previously in other projects. Cross referencing of learnings from prior activities could be one measure of assessment of one development fund project for its ability to add value on top of previous projects and activities.

Discussion

Given that climate change and the accompanying rise in sea level will be the transforming frame in the future food landscape it is reasonable to suggest that a major innovatory contribution has to come from coastal regions at the interface of land and sea. In recognition of this, the Danish contribution to REFRAME was named “Islands of Denmark”, and mapping of food production has revealed that in no population of comparable size in Denmark can be found as many innovative food entrepreneurs as in island communities. It is paradoxical, that smaller islands and coastal regions are generally considered vulnerable rural communities. This view might reflect the fact that these landscapes are considered marginal in relation to industrialised farming and food production. Generally, coastal regions of the North Sea have weak infrastructures in farming and food production. The three EU NSR Interreg projects have these regions as common targets, and they could co-develop the notion that coastal areas represent the living laboratories of the future food landscape. This on one hand would assist in unlocking the development potential in coastal regions and on the other hand contribute significantly to a more positive perception of the areas and also attract innovative individuals to these rural areas.

Historically, drivers of development in the food landscape as we know it today were peasants and food producers. Farmers and food producers still are the drivers of development as we observe it taking place. The force in this development comes from the understanding created between innovative

1 A **biotope** is an area of uniform environmental conditions providing a living place for a specific assemblage of plants and animals. *Biotope* is almost synonymous with the term *habitat*, which is more commonly used in English-speaking countries. However, in some countries these two terms are distinguished: the subject of a habitat is a population, the subject of a biotope is a *biocoenosis* or *biological community*.

producers and conscious consumers. A variety of food producing companies have popped up during the past 15 years in the North Sea region and foods are produced today in ways only very few could imagine just 20 years ago. Common to the individuals who developed these enterprises is that they are highly competent and have good academic skills; they are highly research-oriented and very persistent in pursuing their visions and ideas. Developing new ways of strengthening the link of understanding between innovative producers and conscious consumers will considerably accelerate the development of more sustainable food production in compliance with UN Agenda 2030 and the Paris Agreement.

Paradoxically, the persistent individuals developing the food landscape are also perceived as the individuals who need help from institutions who receive public funding to support what these individuals are doing. Project descriptions presented from these institutions are often simply copies of interventions first formulated by farmers and food producers. To accelerate the unlocking of potential from innovative individuals demands a critical review on the adverse effects of management of public development funds.

Saturating local markets with local food production undoubtedly is a potential driver in accelerating innovation in food production – in addition to local value gain. Combining the perspective of local value gain with that of strengthening development in sustainability of production on the other hand could stimulate the local coherence needed to build these support infrastructures. It would be justified by not only increasing the accessibility to locally produced food but also represent a contribution of the local community to a development in compliance with UN Agenda 2030 and the Paris Agreement.

However, time has come to study the development of local consumption of locally produced food in a time perspective to accelerate the potential of the REFRAME approach. The local business-to-business (B-to-B) market was gradually developed in large areas of the North Sea Region over the past 15 years. It was facilitated to a large degree by food networks, members of which were not only food producers but also actors of culinary tourism, restaurants, hotels, etc. Providers and customers were organized together. However, in some areas of the North Sea Region signs of a peaking of the local B-to-B market has been observed for quite some time and it is tempting to link this the the weakening of local food networks. In recent years municipal intentions of procuring locally produced food has been formulated in a relatively large number of municipalities of the North Sea Region. Yet, local food production has not so far been very successful in saturating this relatively new and important market opportunity. The REFRAME approach of developing local infrastructures in support of local farming and food production could be accelerated significantly but it warrants a better in-depth understanding of the bottlenecks hampering the unlocking of the potential. The REFRAME project has reached a state where a large variety of initiatives have been taken and a lot of data and information have been gathered on the effects of these initiatives. Studying and learning from these experienced is required in order to draw a more precise roadmap to follow to unfold the true potential of the REFRAME approach in accelerating development of local identity and sustainability in the food landscape.

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ⁱ <https://www.un.org/sustainabledevelopment/development-agenda/>

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- ii <https://www.consilium.europa.eu/en/policies/climate-change/timeline/>
 - iii <https://news.un.org/en/story/2019/01/1031322>
 - iv <https://northsearegion.eu/reframe/online-resource-centre/>
 - v <https://northsearegion.eu/reframe/news/island-specialties-a-terroir-in-danish/>
 - vi https://northsearegion.eu/media/4631/report_orc_3_cooperation_wildroefishing.pdf
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 - ix <https://northsearegion.eu/prowad-link/>