NMSP WP - Food Security - Overview

Definition:

According to the Food and Agriculture Organization (FAO), food security "exists when all people, at all times, have physical and economic access to **sufficient, safe and nutritious** food to meet their dietary needs and food preferences for an active and healthy life"

Context:

"Fisheries and aquaculture play a vital role in the global, national and rural economy," said FAO Director-General José Graziano da Silva. "The livelihoods of 12 percent of the world's population depend directly or indirectly on them. Fisheries and aquaculture give an important contribution to food security and nutrition. They are the primary source of protein for 17 percent of the world's population and nearly a quarter in low-income food-deficit countries." (FAO, 2012)

Many world citizens currently suffer food insecurity and the number with diet-related health problems are growing. Poor nutrition is responsible for around 16% of the total burden of disease and is implicated in more than 56% of all deaths.

The Australian Department of Agriculture estimates that only 2-5% of the Australian population is currently affected by food insecurity, and that Australia in fact produces sufficient food to sustain a population of 60 million (DAFF Food White paper).

This would suggest that food security will not be an acute issue in this country for some time to come, but external influences such as climate change, regional conflict and an uncertain economic future can bring forward what would otherwise have been considered only a long-term issue. More importantly, many of the changes required to deal with long-term food security require decades of research and development, planning and implementation, and as such now is the opportune time to implement a strategy to prepare for what will inevitably become a major issue at some point in the future. At that point the end users of research and development in this field will be every Australian. A key role for Australia in food security pertains to food surplus – while Australia is not a large player in terms of overall food production, its role in providing food to countries that suffer abrupt production falls is essential. Australia with its vast marine resources could be a source of food surplus to buffer world food production variance. Australia also needs to address the gap in self-sufficiency. Australia imports 72% of its seafood needs. Improving fisheries yields and aquaculture production offers the opportunity for greater self-sufficiency.

A second element to food security, other than straight meeting of demand, is sustainability of production. Research directed towards the development of sustainable wild capture and aquaculture practices will be rewarded in the short as well as long-term, in terms of better environmental outcomes. It should be born in mind then, that the research priorities outlined below will have significant short-term benefits on top of preparing Australia for long-term food security challenges.

Submissions:

Submissions have been received to date from either individual authors or intuitional groups – including from universities, state institutes and private providers. Submissions were also generated by using the National Fishing and Aquaculture RD&E Strategy –Research Provider Network, including the National Biosecurity and Aquatic Animal Health Hub; and the Indigenous Reference Group.

Consolidation:

All submission input has been consolidated into five working papers:

1. Food Security - Overview
2. Food Security – Capture Fisheries
3. Food Security – Aquaculture
4. Food Security - Aquatic Animal Health And Biosecurity
5. Food Security – Food safety and innovation

The reason for this was that the scope of the science needs are very different and that precluded consolidation into one submission. The needs of Indigenous, recreational, commercial and conservation have been incorporated.

Linkages

The white papers and subsequent National Marine Science Plan clearly needs to show the interdependencies between the theme goals and how multi-disciplinary science is needed to meet the future knowledge needs. There is a implicit requirement that food security development is linked inextricably to all these themes – this may result in overlap which needs to be managed – it is critical that these associations are integrated. Integration reflects the current way these resources are managed but also the way the assets are used by end-users

The other themes are:

- Sovereignty, security and natural hazards
- Energy security
- Biodiversity conservation and ecosystem health
- Dealing with climate change
- Optimal resource allocation
- Urban coastal environments
- Infrastructure