



Food and Agriculture Organization
of the United Nations

Action plan for the International Year of Pulses

“Nutritious seeds for a sustainable future”





INTRODUCTION

Background

Following resolution 6/2013 of the 38th FAO Conference, the UN General Assembly, at its 68th session declared 2016 as the International Year of Pulses (IYP). The Food and Agriculture Organization of the United Nations (FAO) has been nominated to facilitate the implementation of the Year in collaboration with Governments, relevant organizations, non-governmental organizations and all other relevant stakeholders.

The proposal to declare 2016 the International Year of Pulses (IYP) was initially submitted by Pakistan and Turkey in consultation with other countries, who strongly believe that pulses play a major role in addressing the future global food security and environmental challenges as well as contribute to balanced and healthy diets.

“We should not undermine how tasty they are. Pulses are a major part of various traditional cuisines. Dry beans served on rice is one of the famous traditional Turkish dishes that are falafels and hummus in the Middle East, Dall in India, Pakistan, and Bangladesh, and bean paste burritos, soups, and stews in Latin American countries. There is also chick pea flour bread, known as socca in France, farinata in Italy, and fainá in Argentina. We should not forget the famous Mexican chilli.” **[Mr. Mehmet Mehdi EKER His Excellency, the Minister for Food, Agriculture and Livestock of the Republic of Turkey]**

Objectives

The main objectives of the IYP are:

- i. raise awareness of the contribution of pulses to food security and nutrition.
- ii. encourage all stakeholders, including national governments to work towards improving productivity and increasing production of pulses,
- iii. bring in focus need for enhanced investment in R&D and extension services to achieve (i) & (ii) above.

Food security and nutrition have been established as a key international development objective under Sustainable Development Goal (SDG) 2 of the 2030 Agenda for Sustainable Development. As 2016 is the first year of implementation of the Agenda, the IYP will also link the contribution



of pulses to critical targets under SDG 2, particularly on food access, malnutrition, smallholder incomes, and sustainable and resilient agriculture.

Pulses are important food crops and offer significant nutritional and health advantages due to their high protein and essential amino acid content as well as being a source of complex carbohydrates and several vitamins and minerals. Additionally, in view of the biological nitrogen fixation capacity of most leguminous species, their ecological importance is likely to increase in the future. Thus, the family is considered to be of particularly high importance for humankind.

Pulses are annual leguminous crops yielding between one and 12 grains or seeds of variable size, shape and colour within a pod, used for both food and feed. The term “pulses” is limited to crops harvested solely for dry grain, thereby excluding crops harvested green for food, which are classified as vegetable crops, as well as those crops used mainly for oil extraction and leguminous crops that are used exclusively for sowing purposes (according to the FAO’s definition of “[pulses and derived products](#)”).

In light of the above, leguminous crops should be one of the main pillars of sustainable crop production intensification. These plant species need to be considered as the primary strategic objective of internationally innovative agricultural research and development strategies for the coming decades. There are some core agroecological principles for sustainable production such as minimum soil disturbance, maintenance of soil cover, diversified cropping systems, including locally formulated approaches, which might strengthen sustainability and, at the same time, intensify crop production. These principles and practices need to be integrated into cultivation of leguminous species world wide – specially in rain-fed agriculture – in the coming decades.

Adequate attention needs to be given for increasing production and productivity of pulses to ensure that supply demand gap does not impact prices adversely, making pulses inaccessible to the poor and undernourished.

The IYP will focus attention on:

- The role that pulses play as part of sustainable food production. *Smallholder farmers, especially in developing countries, depend on pulse production for their living.*
- The nitrogen-fixing properties of pulses, which can contribute to increasing soil fertility and have a positive impact on the environment.



- The contribution of pulses as part of a healthy diet to address all forms of malnutrition and related diseases.
- Conservation and use of the biodiversity of pulses against malnutrition, climate change, pest and disease management and land degradation.
- Contribution of pulses to climate change adaptation and mitigation
- Contribution of pulses towards income security of farmers in developing countries, especially small & marginal farmers
- Identify good practices and knowledge gaps and research needs, e.g. in agriculture, nutritional content, processing, reasons for decreasing global consumption

The IYP celebrations will also encourage connections throughout the food chain in order to better utilize pulse based proteins, further global production of pulses, crop rotations and address the challenges in the trade of pulses. The celebrations will additionally raise awareness of the benefits of pulses to soil fertility through crop rotations, for climate change adaptation and mitigation, and for their contribution to combat all forms of malnutrition.

Expected outcome

1. Increased knowledge and evidence of pulses, their attributes and their ability to provide solution to nutrition, health, trade and environmental sustainability issues.
2. Strengthened national, regional and local capacities to formulate and implement policies and programmes to improve nutritional status.

Outputs

- A. Regional and Global campaigns/activities to raise awareness on the significant nutritional and health advantages of pulses.
- B. Food Composition Database on Pulses. The data will be used in the context of the IYP to promote pulses, to develop new recipes or value existing recipes for their nutrient contents and advice member states on breeding programmes on pulses for higher nutrient contents of these crops as well as on agriculture projects, programmes and policies.
- C. Outreach and advocacy activities on to promote the significant role of pulses.



IMPLEMENTATION ARRANGEMENTS

The Office for Partnerships, Advocacy and Capacity Development (OPCA), has set up a Secretariat that will facilitate the IYP implementation process, in collaboration with an International Steering Committee (SC) consisting of representatives and alternates, from FAO members, civil society, farmers' organizations, the private sector, FAO technical divisions, research centers, the International Fund for Agricultural Development (IFAD) the World Food Programme (WFP), Bioversity International.

IYP Secretariat

The IYP Secretariat is led by the Office for Partnerships, Advocacy and Capacity Development (OPCA), with the support of the Plant Production and Protection division (AGP), the Nutrition division (ESN), the Trade and Markets Division (EST), the Office of Corporate Communication (OCC) and on an ad-hoc basis, FAO's Decentralized offices. The Secretariat's main function is to support the IYP Steering Committee and coordinate the overall implementation of the Action Plan. It represents the day-to-day focal point for the year, organizes all meetings, prepares background documentation for those meetings and plays a significant role in supporting the implementation of the year.

IYP-Steering Committee

The IYP Steering Committee is composed as follows:

- **Turkey and Pakistan** have been elected as Co-Chairs.
- **FAO Regional groups** are represented by United States, Canada, Turkey, Hungary, Sudan, Ivory Coast, Zambia, Pakistan, India, Australia, New Zealand, Argentina and Brazil.
- **UN Organizations** – World Food Programme, International Fund for Agricultural Development
- **Civil Society Organizations** – World Rural Forum (WRF)
- **Farmers' organization** – World Farmers Organization (WFO)
- **Private Sector** – Global Pulse Confederation (GPC) and Grain and Feed Trade Association (GAFTA)
- **Agricultural Research** – Bioversity International, International Center for Agricultural Research in the Dry Areas (ICARDA) and the Global Forum on Agricultural Research (GFAR)



The IYP-SC will propose, assess and endorse on an ad-hoc basis, new requests for membership to the SC from other organizations, Institutions, NGOs, and major international Stakeholders.

IYP-SC functions:

- Provide guidance on the overall implementation of the International Year of Pulses, including making links with the International Year of Soils (IYS) and International Year of Family Farming (IYFF) when appropriate;
- Provide guidance and monitor the implementation of the IYP Action Plan and propose periodic updates as and when appropriate;
- Provide feedback and stimulate dialogue with partners that are represented by members (e.g. Governments; Civil Society, UN organizations; private sector, farmers organizations);
- Provide guidance, oversight and support for the mobilization, and use, of financial support for the implementation of the IYP action plan;
- Oversee the production of the report to the General Assembly of the UN on the implementation of the IYP, as well as a legacy document.

The Steering Committee will meet every two months during 2015 and on a monthly basis throughout 2016.





External/Internal partners

Governments of pulses producing and consuming countries will provide the political, technical, economic and social context to advance the development of pulses worldwide.

IYP OUTREACH

All outreach activities related to IYP 2016 are coordinated and implemented by the FAO Office for Corporate Communication (OCC) in collaboration with the IYP Secretariat. These include:

- Dedicated webpage, logo and constant communication outreach throughout the year
- Press conferences by national authorities in connection with key events
- Preparation of communication materials highlighting local and regional examples of successful approaches (e.g. YouTube spots, brochures, magazine articles or dedicated webpages, TV/radio spots, etc.).
- IYP Banners, Factsheets etc.
- Publications and other written promotional material.

IYP ACTIVITIES/EVENTS

Activities organized and/or supported by the IYP Secretariat

The IYP Secretariat will organize/support specific IYP events such as:

- Nomination of IYP special ambassadors
- IYP 2016 launch and closing ceremonies
- Regional and Global awareness raising campaigns
- FAO/INFOODS food composition database on pulses

Detailed information on the mentioned activities can be found in the ACTION PLAN: 2015/2016 table below.

ACTION PLAN: 2015/2016 (draft version)

	ACTIVITY	DESCRIPTION	BUDGET	RESPONSIBLE	
2015 2016	IYP Steering Committee	Establishment of IYP-SC		IYP Secretariat	
	Action Plan	Draft IYP Action Plan			
		Estimation of necessary financial resources			
		Final Action Plan			
	Multilateral Trust Fund (MUL)	Submit project proposals for external donors (private sector, countries, international organizations) – Mobilization of funds		IYP Secretariat + TC + OPCC	
		Final version of MUL			
	Regional and Global campaigns/activities	Promotion of Pulses for Multiple Benefits in Asia - Bangkok, Thailand 29/06/2015 organized by FAO in collaboration with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and the International Center for Agricultural Research in the Dry Areas (ICARDA)			
		International Conference on Pulses for Health, Nutrition, and Sustainable Agriculture in Drylands (Morocco April 18-20, 2016) organized by ICARDA in collaboration with the FAO Regional Office in the Near East Morocco			
		Regional Dialogues: Two – day-facilitated events bringing together a wide spectrum of stakeholders and representatives of different constituencies/sectors in each region (Africa, Asia and the Pacific, Near East, Europe, Latin America and the Caribbean)			
		Face to Face (F2F) Global Dialogue on Pulses , FAO Rome HQ			
		Online discussion: Global Online forum on the outcomes of the Regional Dialogues. (FSN online Forum)			
		FAO-AMARC Regional Campaigns: aims to raise awareness of the contribution of pulses to food security and nutrition. It will use community radio to reach and engage directly pulses stakeholders (e.g. family farmers and the rural population)			



Food Composition Database on Pulses & Additional study papers	Analytical food composition database on pulses which will hold solely analytical data of sufficient quality. Data will be collected from published and unpublished literature with special emphasis on biodiversity and their relation to agriculture and processing features		
	User food composition database on pulses of selected pulses based on the importance of the pulse and the available data. This user database on pulses will have a complete nutrient profile for selected foods and components		
	Recipes, posters and fact sheets on the composition of pulses		
	Scientific review articles on the composition of pulses , similar to those published on potatoes, quinoa, fish or insects by members of FAO/INFOODS		
	Mapping existing and on-going studies , research, documents and publications on pulses		
	Concrete examples of field actions will be promoted as best practices, in ongoing projects/programmes implemented by (different) FAO technical units or others		
	Workshops on best practices and successful experiences on Pulses		
Report on the world pulses economy	Study on the world pulses economy (50-60 pages report)		
Report on Climate Change impacts on Pulses	Study on Climate Change impacts on global pulse production		
Communication, Advocacy and Outreach	Publish and maintain the IYP website , making available key facts, and facilitating dialogue and participation among the different stakeholders http://www.fao.org/pulses-2016/en/		
	Official IYP launch and closing ceremonies		
	Reports on IYP at FAO Conference and Council and at all possible regional and national events		
	World Food Day 2016 events dedicated to Pulses		
	Pulse Feast worldwide event (January 2016)		



	Visibility/International events to highlight the important role of pulses		
	Nomination of one/more “Special Ambassadors” for the International Year of Pulses		
	Side events on pulses at COAG, COP and CFS in 2016		

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Activities organized by external actors (2015/2016)

- CICILS 2015 World Pulses Convention - Caesars Palace, Las Vegas USA 12-15 April 2015
- EUCARPIA International Symposium on Protein Crops - Pontevedra, Spain 4-7 May 2015
- Pulse & Special Crops Convention 2015 Calgary, Canada 21-23 June 2015
- IYP Ethiopia Launch - Ethiopian Pulses Oilseeds & Spices Processors – Exporters Association (EPOSPEA), Addis Ababa, 18 November 2015
- Scientific Symposium on Pulse Health and Nutrition Sackler Institute, NY 19 November 2015
- The Pulses Conclave –Jaipur, India 17-20 February 2016
- Event on Pulses at Gulfood (tbc) World Trade Centre, Dubai, UAE 21-23 February 2016
- Pan-African Grain Legume Conference to be held jointly with the World Cowpea Conference Livingston, Zambia 28 February to 4 March 2016
- Regional Conference Central American Cooperative Program for Crops and Animal Improvements, Costa Rica 5-8 April 2016
- International Conference on Pulses for Health, Nutrition, and Sustainable Agriculture in Drylands – Marrakesh, Morocco 18-20 April 2016 organized by ICARDA
- World Pulses Convention - Izmir, Turkey 19-22 May 2016
- Event on Pulses at World Humanitarian Summit (tbc) Istanbul, Turkey 26-27 May 2016
- INRA (francophone) meeting on grain legumes - Dijon, France 31 May- 1 June 2016
- Australian Pulse Conference 2016 - Tamworth Town Hall, Fitzroy Street, Tamworth NSW Australia 12– 14 September 2016.
- Second conference of the International Legumes Society - Troia, Portugal 12-14 October 2016
- International Conference on Pulses for Nutritional Security and Agricultural Sustainability - New Delhi, India 12-14 November 2016



FINANCIAL IMPLICATIONS & RESOURCES MOBILIZATION (2015/2016)

In line with UN General Assembly resolutions, the costs of all activities implemented under the IYP 2016 action plan, currently within the mandate of FAO should be met through voluntary contributions, including from the private sector. To this end the IYP Secretariat will establish a **Multilateral Trust Fund** that will enable IYP donors to pool resources together under an umbrella mechanism. This will ensure economies of scale in the administration of the funds while enabling reporting and management of the resources in an efficient way. Staff, time and resources devoted to the management of the project will be spread evenly through the pooled fund with a resulting reduction of the overall running costs.

The initial budget is set at a level of **USD 487,000**. This budget is indicative. The final budget will depend upon the real volume of contributions from the resource partners.

This multilateral trust fund shall enhance a more strategic approach to funding and shall correspond with the common interest of all stakeholders and resource partners. All contributions will be subject to a signed Agreement with the resource partners.

OPCA will be the Lead Technical Officer (LTO) and Budget Holder of the Multilateral Trust Fund.

Follow-up of the IYP

- Mechanisms for the IYP follow-up



Technical Note

Benefits of Pulses

Their importance in human nutrition as a protein source

As all pulses, edible pulses have high protein content in their structure and they have significant importance in terms of nutrition source. The amino acid composition of pulses is complementary to those of cereals, and if consumed in combination, increases the overall protein quality of the meal.

Their importance in animal nutrition

In many tropical areas, smallholders raise their animals on unimproved tropical grasslands. In the dry-season (lasting more than six months), nitrogen concentration of the grasses might fall below 1.1% (7% crude protein), and at this point animals begin to reduce feed intake. Potentially, crop residues of grain legumes could be used as animal fodder to increase nitrogen concentration of the diet, thus improving animal performance.

Pulses are known as nourishing and healthy food source

Pulses are part of a healthy diet. They have a low fat content and they do not contain cholesterol. Glycemic Index, indicator of blood sugar, is low in pulses. They are significant sources of dietary fiber. Since they do not contain gluten, they are suitable for celiac patients. Additionally, pulses contain good amounts of minerals like K, P, Ca, Mg, Fe, Zn, Se and are rich in vitamins like folate.

Environmental importance of pulses

Depending on species and environmental conditions, grain and forage legumes are able to biologically fix up to 350 kg of nitrogen/ha/year. This biologically fixed nitrogen contributes to reduce the amount of synthetic nitrogen fertilizer use in agriculture and, therefore, indirectly reducing greenhouse gas emissions

The importance for sustainable agriculture and for crop rotation

Pulses are particularly important for sustainable agriculture, not only for the nitrogen fixation capacity of most species but also because some species have the ability to mobilize soil-bound phosphorous, thus making it available for other crops. Additionally, in pasture, cropping and agroforestry systems, leguminous species promote higher rates of accumulation of soil carbon than cereals or grasses.