Global Facilitation Unit for Underutilized Species

Strategic approaches for funding work on underutilized Species

For

The Global Facilitation Unit for Underutilized Species
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1. Introduction

The case for focusing interest and conducting research on underutilized species has been debated with some intensity in recent years. Discussions have included consideration of why such species are “underutilized”, or “neglected” or are “orphans”. The question “neglected by whom” is often raised. The concentration of attention on these issues underlines the reality that mainstream science and development work have often sought quick fixes and ignored resources that have critical local importance. This may have been due to seemingly necessary generalization in agricultural policy and priority setting based on criteria that squeeze out minority interests. Understandable as this may be in a world of finite resources, it has meant that important opportunities for improving the livelihoods of the poor have been overlooked. Neglect has, in some cases, led to severe genetic erosion, with the risk that underutilized species may become additions to the list of lost crops.

Fortunately it is now much more widely understood that underutilized species as a group are a significant resource for agricultural development. They can contribute positively to livelihoods through enhancing incomes, diversifying diets and improving nutrition, as well as embodying important cultural dimensions relating to the history, customs and religious beliefs of communities. The present improved position owes thanks to the scientists who have persisted in making the case for underutilized species. Credit is also due to a limited number of donors who have taken an enlightened approach over time and supported work outside the main stream, to organizations such as ICUC that have raised awareness and coordinated collaborative research, and to GFAR which has provided a forum for debate on the subject and promoted the development of the Global Facilitation Unit for Underutilized Species (GFU).

Recent years have seen the adoption of strategic approaches that can provide a sympathetic context for appreciating and capitalizing on the potential of underutilized species. Thus, the commodity chain approach aims to bridge gaps and strengthen the links in the production-to-use continuum. The sustainable livelihoods framework is an even more holistic approach to agricultural research that makes a pragmatic and creative assessment of the assets available to communities and the means by which they can be put to work in the improvement of well-being. A key feature is a broad definition of poverty extending beyond incomes alone to include impoverishment of many livelihood requirements such as health, education and a political voice. The approach gives due emphasis to respect for local peoples’ customs and capacities including indigenous knowledge, and provides a ready arena in which work on underutilized species can make a significant contribution. It recognises the context-specific nature of work on underutilized species and provides tools that can be put to good use in analysing problems and potential solutions in all their complexity. Detailed analyses of the contributions that underutilized species can make to poverty alleviation and the different approaches that can be used to promote them are provided in the proceedings of the joint InWEnt/GFU International Workshop on Underutilized Plant Species (see Section 14: Recommended reading).

2. Bridging the funding gap

Despite the currently more favourable climate for conducting research on underutilized species, there remains a disproportionate gap between research funding needs and successful resource mobilization. In recognition of this, the mission of the GFU includes facilitation of stakeholders’ access to funds in support of their work. Taking into account the scale of the GFU’s human and financial resources in relation to its partner network, the diverse needs and capabilities of partners, and the dynamic nature of the donor climate, it would not be practicable to detail all possible donors and funding opportunities, or provide support in pursuing such opportunities. Rather, the approach that is being taken to fulfil this element of the GFU's mission is to provide advice on optimal positioning of work on underutilized species in the funding arena, identify donors that may include such work in their priorities, point to mechanisms for identifying additional donors, and suggest strategies for maximising the overall resources available for the work.

The premise taken here is that three key conditions are necessary for a request for funding to be successful: (i) a well-conceived piece of work to carry out, (ii) a well-argued and presented project proposal, and (iii) a potential donor. This guide seeks to help the GFU's partners increase the chances for their work to be funded through suggesting strategies to meet these key conditions. Many of the strategies apply to any area of endeavour in the research and development world, but work on underutilized species has its own special characteristics that have influenced the past history of the subject and its present position in the funding arena. The challenge is to examine those characteristics, analyse the influence that they have on the potential for funding, compensate where they have handicapped funding possibilities, and turn them to advantage where they could enhance the competitiveness of the work.

3. A matter of scale

The community of practitioners working on underutilized species is as diverse as the species themselves. At one end of the scale, there are individual NARS scientists or small NGO's applying their specialist skills to a priority problem of particular local importance whereas, at the other end of the scale, there are large international organizations coordinating research consortia conducting research for development programmes with significant components on underutilized species.

One generalization that can be made is that work on underutilized species usually benefits from a multidisciplinary approach, implying teaming up with others. However, it is well recognised that, for logistical and organizational reasons, this will not necessarily be an easy option, particularly for individuals and smaller organizations. Also, some funding opportunities are for relatively small sums that would not support a large research team. Moreover, some funding opportunities will become apparent at short notice, allowing little time for collaborative interactions.

Practitioners in the field will also vary in their resources for and experience in fund-raising. The GFU recognizes that many of its partners will not be in a strong position in this regard and, therefore, wishes to give attention to their needs. Accordingly, in each of the following sections, the implications of the advice given for individuals and small organizations are addressed.

4. The funding cycle

Most organizations have a continuous stream of research and development activities, with beneficial cross-fertilization of ideas and results among work areas and colleagues. However, in the interests of good planning, management and accountability, work is effectively compartmentalized into structured units or "projects" with specific objectives, and a specific budget and time-frame. As a generalization, a project will start life as an idea emerging from an existing need in search of a solution. This idea will be developed into a project proposal, perhaps via a concept note stage, and then submitted to a donor. When a proposal is successful, the donor will advise the applicant who will then initiate the project and conduct it over the foreseen time-frame.

Donors will normally expect interim and final reports covering technical progress and financial status. Throughout the lifetime of a project, there will be other mechanisms such as conferences, press releases and information sheets to make both the donor and other stakeholders aware of progress. Advantage should be taken of these opportunities to maintain donor interest and to raise the general level of awareness of the importance of neglected species.

As well as monitoring the project's progress over time, an evaluation should be conducted upon its conclusion. This will help understand both its achievements and the constraints experienced that may have limited success. This will provide learning to improve future activities and, along with a sound dissemination plan for the project's findings, will help increase impact. To read more on the funding cycle, click here. ***<link to Box 1>***

Box 1: The funding cycle

The initiative in creating an opportunity for funding sometimes comes from the recipient and sometimes from the donor. A funding opportunity may be initiated by a potential recipient's contacting a potential donor and requesting support. This is most effective when there is an established relationship, with good person-to-person contacts to ensure that the correspondence reaches the most suitable destination within the donor organization. It is undoubtedly easier for large organizations with personnel and resources for donor relations to foster such contacts. This should not, however, deter those with more modest resources for making their work known to potential donors by whatever means available.

It is more likely that an opportunity to apply for funds, especially for individuals and smaller organizations, will arise as a result of information emanating from the donor. Many donors issue calls for proposals on a given area of work. Increasingly, these are announced on donor web sites as well as or instead of through journals, underlining the importance of Internet connectivity to current awareness on funding opportunities. Individuals and organizations that do not have good Internet access should try to create linkages to others such as the GFU and ask to be informed of calls for proposals that are made public.

Calls for proposals sometimes involve a concept note stage followed by a full proposal stage. This especially the case when significant sums are involved and when the competition for the funds is likely to be high. Only those whose concept notes pass the initial screening stage will be invited to submit full proposals. This can be seen as involving more work than necessary but is, in fact, in everyone's interests through offering the opportunity to make a relatively small investment of time and effort to reach the first hurdle, and avoiding the raising of expectations and investment of significantly more time and effort for a low probability outcome. Moreover, when the results of the review of the concept note are made available to the submitter, it can help greatly in strengthening the full proposal following a successful concept note, or increase the probability of future success when the concept note has not been successful when initially submitted. To read more on concept notes, click here. ***<link to Box 5>***

Donors will normally advise in their instructions for applicants when the success or otherwise of their proposals will be made known. This should be taken into account in scheduling the work, to allow for starting up the project in a timely way. Projects often suffer delays in start up due to the need for recruitment of staff or other essential steps, and this can lead to a succession of delays that result ultimately in a request to the donor for a no-cost extension of the project. This conveys a negative impression to the donor and should be avoided.

There will normally be a schedule for submitting technical and financial reports to the donor. Most donors provide details of the required format for the reports. These should be observed in full. Where there is no prescribed format, the financial report should reflect the budget structure of the proposal and indicate use or commitment of funds against particular budget lines. The technical report should give a clear idea of the work undertaken to date, its outputs, constraints encountered and steps taken to overcome them, and implications of achievements to date for the successive reporting period. The donor wants to see, in both the financial and the technical report, that the project is on track or, if not, that steps are being taken to bring it on track.

Reports should be accompanied or followed by any publications that result from the work. The publications should fully acknowledge the donor's support. The reports prepared at the conclusion of the project are important as they will be the final documentation on record about the success of the project, providing a reference for future applications for support. However, in order to maintain continuity of funding, the funding cycle for any one project is likely to overlap with that of a successive project, because of the time taken for new submissions to be considered. Therefore, a good record of complying with donor reporting requirements throughout the lifetime of a project will help convey a positive impression of competent project management. Related issues are discussed further in Section 13.

The next six sections address the first two of the three key conditions for success in fund-raising as noted in Section 2, namely, a well-conceived piece of work to carry out, and a well-argued and presented project proposal.

5. Positioning work on underutilized species

The most compelling argument for supporting work on underutilized species is the tremendous scope that exists for using these species, as components of biodiversity, in the fight against hunger and poverty. Therefore, articulating the role of such species in that fight is essential to positioning the work in approaches to donors. The vast majority of the calories consumed by humans are met by a tiny fraction of the total number of actual and potential food species available. Thus, of the ca. 70,000 edible species present in nature, some 7,000 are recognised food species, with only 30 providing 95% of the world's food energy needs. This goes a long way to explaining the concentration of research and development effort on the majority crops. However, a strictly numerical assessment totally overlooks the critical importance of agricultural diversity in diet and health, and in making multiple economic contributions to livelihoods including reducing risk. It also overlooks the importance of diversity in the sustainability and productivity of agricultural systems, particularly in marginal environments, and in contributing to the richness of ecosystem biodiversity overall.

Underutilized species are underrepresented in genebanks. This further highlights the importance of their conservation through use in production systems and in the wild, as well as the importance of amplifying research on their genetic diversity. Major crops are extremely well characterised and exploited accordingly, but underutilized species must be recognised as harbouring a wealth of potentially useful traits that could develop into new crops, reveal new uses and serve new markets. All of these developments stand to further enhance the livelihoods of communities through capitalizing upon existing but underexploited resources to meet today's needs.

The fundamental strength of the argument for supporting work on underutilized species is that they represent "good news". Thus, they represent potential to be realised, opportunities to be seized, and solutions to be explored to address the complexity of current development problems. This optimistic approach, supported by strong evidence, rather than one of lamenting the neglect of underutilized species, should position the work well in the eyes of a donor. This should be emphasised by using assertive rather than apologetic terminology to underline positive aspects, following the model of M.S.Swaminathan who suggests, for example, talking about “nutritious grains” rather than “coarse grains”.

There will sometimes be occasions when an opportunity for funding is defined by the type of technology that it will support and could just as usefully involve working on an underutilized species as working on a major crop. This represents a good opportunity to engage more donors in supporting underutilized species but it will not be enough to say: “We might as well use an underutilized species”. Rather, the case should be made on the strength of the wider impact on livelihoods that will be achieved if an underutilized species be used.

The virtuous circle that is generated by optimizing the contribution of underutilized species in people’s lives can form a compelling centrepiece of the argument for working on them. The clear demonstration of the benefits of agricultural diversity creates incentives for conserving it, thereby investing in the future of communities and society as a whole. Thus, small farmers, especially women, grow a great diversity of crops thereby improving the health of their families and providing goods for sale in the market which return income to the families to further improve their well-being. The purchasers of the diverse crops have a healthier diet, and all who are well-nourished become more productive for the benefit of themselves, their families and their communities. To read more on health and related issues, click here. **<link to Box 2>**

Box 2: Underutilized species and health

The hunger-health-nutrition nexus is a particularly rich area for finding justifications for work on underutilized species. Indeed, increasing dietary diversity is considered to be the single most effective weapon in helping those at greatest risk of ill-health through dietary insufficiency, namely women and children in rural areas. Underutilized species can play a powerful role in supporting food security in marginal environments, and in tackling hidden hunger and diseased of affluence such as obesity, cardiovascular disease and type II diabetes. These diseases are caused by calorie-rich but diversity-poor diets, with an overrepresentation of imported “modern” vegetables like cabbage, kale and carrots.

The diversity embodied in underutilized species provides an abundance of suitable foods for emerging consumer markets, at the same time improving the health of the urban population and the income-generating potential of the rural population. Underutilized species can create multiple opportunities for poor people to feed themselves and generate income to invest in their homes, in health care, and in education to improve their families’ overall well-being today and in the future.

The literature on underutilized species provides very useful examples to make the case for extending agriculture beyond major crops, and to illustrate particular situations, strategies and successes. Here, the special characteristics of underutilized species come to the fore, such as their vast range, their local specificity with an abundant but increasingly fragile body of associated indigenous knowledge, their versatility revealed in multiple uses, and their scope for adding value and enhancing incomes. Harnessing the indigenous knowledge associated with underutilized species is a key to maintaining and amplifying their usefulness in human diets. Examples abound of vegetables that act as natural disinfectants, vitamins, antioxidants, and dietary components that enhance the availability of other nutrients within an admixture of different foods. Various sources such as “Meeting the Millennium Development Goals with Agricultural Biodiversity” (see Section 14: Recommended reading) provide good examples.

The benefits to humans through better nutrition are paralleled by benefits to the environment. Crops that will flourish in marginal conditions characterized by fragile ecosystems threatened by drought, desertification or salinization require fewer inputs, thereby benefiting the farmer through lower costs, and the farmer, consumer and the environment through reduced exposure to agrochemicals and more sustainable production systems. Well-chosen examples, presented in a balanced way will help counter the romantic impression that sometimes surrounds work on underutilized species. This is not anecdotal support for a bygone way of life, but a real way of taking the best of the old and the best of the new to move agricultural development and livelihoods forward. Moreover, the best of the old needs to be harnessed while it is still available. Statistics on food consumption in sub-Saharan Africa, for example, indicate that dietary diversity and nutritional quality are declining rather than being static.

For individuals and smaller organizations, all of the above observations apply, with the additional advice that it may be even more important to make the donor aware of your appreciation of the importance of underutilized species, and your expertise and other credentials for working in this field. In the case of a relatively small-scale funding opportunity, you may also need to give additional attention to exploring the ways in which the findings of your work will be linked to other efforts and made known to the wider scientific and development community. This could be through presentations at conferences, publications, network newsletters etc..

6. Setting priorities

Allocating substantial resources to research on one of a limited number of major crops of significant regional or international importance can readily be justified in terms of potential return on investment, especially in the short term. This logic can not easily be applied to underutilized species. They are vast in number and taxonomic diversity. They are usually of local importance with limited knowledge of their properties beyond the communities that cultivate them and the specialist scientists, if any, who have studied them. This presents a serious challenge when framing requests for support.

Upon receiving a proposal, donors will ask: “Why choose this species?” “How far-reaching will the impact be?” Therefore, the process of priority-setting needs to be very clear, indicating the criteria that led to the choice of species and the constraints that the research is addressing to enable the potential of the species to be realised. The extent to which the findings can be adapted to other locations and species, taking advantage of analyses that have identified clusters of species with common characteristics, and the capacity-building that the project will achieve should be well articulated. There will never be enough resources to follow a research strategy that simple eats, one at a time, into a list of species. A multiplier effect in the research strategy will make the proposal much more competitive.

Donors may also ask: “Is this sound research for development or ‘hobby science’ ?” This may appear to be a harsh judgement, particularly since the dedication and enthusiasm of scientists in the face of underinvestment has kept the work on underutilized species alive for so many decades. However, the reality is that all scientists are enthusiastic and knowledgeable about their given field. It is just that those working on major crops often do not need to introduce the reader to the crop and the actual or potential importance of the research that they are proposing; they have the advantage of familiarity.

To read more on the arguments that can be presented for giving priority to underutilized species, based on their topicality in the face of today's development challenges, click here. ***<link to Box 3>***

Box 3: Underutilized species as priorities for support

The case for supporting work on underutilized species needs to be made carefully, with adequate detail on the species and the proposed research activities, complemented and well-balanced by very clear and substantiated explanation of the rationale for the work and its potential outputs and impact. For example, claims for income generation should be accompanied by information on market potential, with a convincing analysis of assumptions and risks.

A powerful counterargument to any sense that special interests rather than research and development priorities may be driving the work on underutilized species lies in its enormous topicality. Work on agricultural biodiversity has undergone paradigm shift in recent years. The "centre of gravity" of much past attention to genetic resources has concentrated on exploration, collecting and conservation in genebanks as an investment for future use. Latterly, partly in recognition of the extent and value of such past work from which we now need to move on, but more particularly in recognition of its limitations in meeting peoples' needs today, the emphasis is shifting to conservation for and through use. This means working more closely with farmers and communities, respecting and using their knowledge and skills, and taking a multidisciplinary approach to understanding and enhancing the role of diversity in peoples' lives. This is precisely the approach to which underutilized species are best suited.

The argument that this is indeed work for today's problems is further illustrated by observation of the effects of changes in the structure of society. Increased urbanization is bringing with it a need for fresh, high quality and diverse food for city dwellers to combat the growing incidence of diseases of affluence such as obesity, cardiovascular disease and type II diabetes. To read more on health issues, click here. ***<link to box 32>***

Finally, on the issue of topicality, underutilized species offer great opportunities for taking the best of the old and melding it with the best of the new. For example, adapting and adopting new uses and modern techniques, with an eye to consumer concerns over food standards and hygiene, can help derive significantly more value from traditional crops whilst maintaining their intrinsic qualities. The phenomenon of globalization, generally discussed in negative terms, can have positive elements for underutilized species relating to international technology transfer of processing methods, and the development of international markets in higher income countries, where there is consumer demand for exotic food products and artisans' work.

All of the above advice applies to individuals and small organizations with the need to give particular attention to the linkages between your work and that of others so that the impact can be maximised.

7. Authoritative sources and examples

The Convention on Biological Diversity, the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources, the International Undertaking on Plant Genetic Resources, the World Food Summit declarations, the CGIAR System Review, the CGIAR Genetic Resources Policy Committee, GFAR, and the World Health Organization have all explicitly recognise the importance of underutilized species. The Millennium Development Goals addressing hunger, malnutrition and poverty describe challenges that cannot be met without taking a more holistic and sustainable approach to agricultural production.

Thus, demonstrating an awareness of wider problems of food security, nutrition and health that, as yet, have not been tackled through multidisciplinary approaches will strengthen your case. The above sources can be quoted to provide a general supportive context for and, where possible, specific linkages with the proposed work. However, the claims for the potential impact of your work should be realistic.

Once more, for individuals and small organizations, all of the above advice applies. If at all possible, examples in which you have been involved or ones that provide a direct parallel or linkage with the proposed work will strengthen your case.

8. Making the best case possible

The funding arena is a marketplace, with many players competing for the donor's attention. Small voices are not easily heard. However, some funding opportunities are designed specifically for low budget applications and for specialist interests. These can enable individuals and small organizations to enter into the funding arena and gain experience and visibility. They should, therefore, be seized for the benefits that they can offer. Nevertheless, to reach the scale of activities necessary to achieve its full potential, work on neglected species needs to be able to extend beyond the specialist interest niche and into the main stream. This means competing on equal terms with work that may be more familiar to the donor and for which the case for funding may have many precedents. First and foremost, this means having a strong case to put forward. To read more on the components of a strong, well-conceived case click here. <link to Box 4>

Box 4: Elements of a good case

Guidance on approaches and decision steps to consider in the development a project strategy are very well set out in the GFU publication *Approaches and Decision Steps for the Promotion and Development of Underutilized Plant Species* (see Section 14: Recommended reading). This explains the key features that are common to all underutilized species, underpinning and complementing the diversity of approaches that will be needed to meet individual species' characteristics. The decision steps are explained in the form of key questions to answer in relation to objectives, species characteristics, strength, weaknesses, opportunities and threats, the main intervention areas and their necessary strategic elements to build on the strengths and opportunities, whilst overcoming the weaknesses and threats, and the stakeholders to be involved.

The central aims of the work presented for funding need to be clear to the reader. They need to tackle a priority problem with soundly justified methodology, indicating how the outputs of the work will be put to use by beneficiaries, identifying the intended impact, and demonstrating how constraints will be tackled. The boundaries of the work could be relatively broad or relatively narrow, but the very nature of work on underutilized species means that a multidisciplinary approach is likely to be necessary in the project itself, or at least in its institutional setting and linkages.

A logical framework ("logframe") providing a concise summary of the project is a good planning and explanatory tool. It enhances the clarity of a proposal and is often required by donors. There are various formats for a logframe; one commonly used consists of a 4x4 table setting out a hierarchy of Objectives (Goal, Purpose, Outputs, Activities) on the vertical axis with, on the horizontal axis, Indicators, Means of Verification, and Risks and Assumptions for each level of Objective.

As noted in Section 4, applying for funds may be a one-step process, or it may be a two-step process involving a concept note followed by a full proposal. To read more on concept notes, click here. ***<link to Box 5>***

Box 5: Concept notes

Making a good case is particularly challenging in the limited space afforded by brief concept notes, which are commonly two to four pages long. The concept note format is usually prescribed by the donor, whose instructions should be followed carefully. Under each particular heading, the required information should be included as completely and concisely as possible.

Where there is no particular format, the content should reflect the fact that a concept note is intended to convey the essence of a proposal without including full details of the background to the work, the methodology used, the partners involved, and the budget. There is a careful job to be done in using the space efficiently to convey the strength of the good idea that you want to have funded, the impact that it will achieve, the essential components of the work and when they will be carried out, what it will cost, and your comparative advantage in carrying out the work. The overall content of the concept note will itself, when well written, convey your comparative advantage, but you should use some space to explain why you are in a good position to manage the funds. This may be through a past record of successful work in the area, an appropriate skills base and partnership network, and a relevant location in terms of infrastructure and geography.

The idea should be sold in a balanced way, conveying a positive sense that the work can be successful but with a considered discussion of assumptions, risks and constraints. As well as requiring information on impact as a matter of course, donors will often ask about the implications of the work in a number of strategic areas such as gender, policy, public-private sector linkages, NGO involvement etc.. Full advantage should be taken of the abundant opportunities in the field of underutilized species to provide concrete information on these issues.

Concept notes, like proposals should be submitted in a stand-alone format. Whilst it is useful to accompany them with a covering letter that emphasizes in one page or less the importance of the work and its relevance to the donor, this should duplicate and not replace the same points in the concept note or proposal, which are likely to become separated from the letter when circulated for review.

The good idea embodied in the case put forward as either a concept note or full proposal needs to be able to compete in terms of its content, as above, but also in terms of its presentation. To read more on these points, click here. ***<link to Box 6>***

Box 6: Competing for the donor's attention

To maximise the chances of success for a proposal, it needs to engage the attention of the donor and convey its importance in an appealing way. The proposal will be competing with many other proposals for the donor's attention. Therefore, like the representative of any minority trying to be heard, it should be well turned out, punctual, to have done its homework, make the best use of the time that is available, and speak the same language as the audience. Being well turned out means developing a high quality proposal that follows donor guidelines. Where there are no specific guidelines, use a general format that includes background and justification, objectives, methodology, beneficiaries, partners, impact, and budget. Make the document well laid out, easy to navigate, clear, unrepetitive, in a legible font and carefully checked. The budget should be transparent, well justified and mathematically correct. Further guidance on the development of concept notes and full proposals can be found in Section 14: Recommended reading.

The constraints surrounding the project and influencing its impact, as analysed in the logframe's Risks and Assumptions, are important for any proposal. However, they may be considered particularly important for work on underutilized species, which has been handicapped over the years by lack of technologies, and erosion of diversity and related indigenous knowledge. To these can be added an unsympathetic policy and legal environment and, in some cases, underdevelopment of desirable characteristics and lack of market infrastructure. These aspects should be given adequate attention in the proposal document to ensure that the reader is convinced that they have been taken into account in the project design. Increasingly, donors are looking for evidence that constraints are well managed, including through building components into the project to enhance the probability of success through creating a more conducive project environment. Boundaries need to be drawn around the work, and the challenge in the project design will be to define a body of work that has the greatest possible chance of success through defining realistic and achievable objectives whilst, on the one hand, managing constraints as effectively as possible and, on the other, avoiding over-committing the project's resources.

Being punctual means meeting deadlines. The majority of funding opportunities have deadlines that can be quite tight; only rarely will a donor extend a deadline. The very nature of work on underutilized species often entails interactions among a number of dispersed partners. Inputs from the different players need to be solicited in good time, with someone responsible for coordination, compilation, harmonization and provision of feedback.

Doing your homework should include checking carefully the donor's thematic and geographical priorities, and where the donor positions itself in the research to development continuum. These points will normally be covered in the donor's web site or publications. It is also useful to try to obtain a list of the projects funded by the donor. If, as is our objective, work on underutilized species is to move into the main funding arena and to be seen less as a specialised minority interest, it may well be necessary to push the boundaries of the work covered by the donor's current portfolio of funded projects. For this to be achieved, it will be particularly important to make a compelling case for the work's relevance, timeliness and importance. The proposal should explain the congruence of the work with the donor's priorities. Why and how will it help achieve the donor's objectives? What is the impact pathway? Does the work complement other agricultural research activities funded by the donor? If so, quote them. Has the donor a history of supporting work on human rights, health, cultural identity etc.? If so, point out how your work is at the nexus of such work and sustainable agriculture. Pushing the boundaries should not, however, extend to going outside the geographic priorities of the donor, contradict the donors priority topics, or focus on upstream research for a donor that is only interested in downstream development work.

The donor will expect you also to answer the question: "Why you?" What is your comparative advantage to conduct and or coordinate the work? Have you assembled the necessary skills to carry out the work? Have you demonstrated a clear knowledge of the field and linkages to be able to ensure that the outputs of your project will reach their target?

Making the best use of the time that is available means, in the context of a funding request, using the limited space of the proposal document to make the key points that will convince the donor to provide support. This goes back to the issue of doing homework. What will resonate with the donor? Why would the donor support your project rather than a more conventional one on a major crop? Essential explanations on how you will do the work are important, but you should not exaggerate the amount of technical detail. This will not, in any case, be absorbed by the reader, yet will sacrifice precious space needed to explain the project's relevance, the competence of the partners, and the expected outcomes. This is particularly the case for a concept note that may be followed up by a more extensive full proposal with scope for full details.

As well as complying with any language requirements specified by the donor, speaking the same language as the audience in the colloquial sense is particularly important when the audience may be new to the subject. Take care to write clearly, defining unfamiliar terms and acronyms. Donors are very busy people and will only have a short time to read your proposal. It must stand alone, albeit with necessary references, and provide a competent, clear and complete read. You should also take into account the fact that the donor may call upon specialist reviewers. This will mean combining the necessary qualities to make the proposal accessible to a non-specialist without introducing inaccuracy or omitting important technical elements that would be expected by the specialist. This sounds like a balancing act, and it is!

All applicants should consider the advice in this section. However, for individuals and small organizations, it may be particularly important to explain well your comparative advantage in all its aspects.

9. Creating awareness over time

Most donors have a tradition of supporting particular countries or regions and particular areas of work. This means that the groundwork can effectively be laid for some new proposals because the donor already appreciates the importance of the work and can readily see how it builds upon past investments. Work on neglected species does not, with the majority of donors, have the benefit of a history of investment. This is a handicap, particularly when considering the time available to the donor to read new proposals. The same constraint, as well as space limitations, prevents lengthy introductions to the subject in a concept note or proposal. However, over time, it is possible to create a climate of understanding and appreciation for the work outside the proposal submission procedure. To read more on this, click here. ***<link to Box 7>***

Box 7: Raising awareness

Informative material on the work of your organization can be sent on a regular basis to donors. Attention can be drawn to the work in publications such as annual reports, press releases on newly launched or successfully completed projects, displays at meetings where there are donor representatives, and so on. The objective should be to create a degree of familiarity with and sympathy for the work to attract further interest and enquiry.

Within the proposed project itself, there may well be scope and need for a public awareness and educational components. Targets for public awareness may be farmers to draw their attention to the income generating potential of a particular species and thereby enlarge the project partnership network. They may be retailers and consumers to raise their awareness of the nutritional and market value of the project's products. Consumers will not buy an unfamiliar product of perceived low status that they associate with peasantry, or a product that they do not know how to prepare for the table. Politicians and decision-makers may also be targeted to enlist their help in creating a more conducive legislative climate for developing, producing and marketing underutilized species, and to use their outreach capabilities for public education. Creative use of different media and communication tools including local radio, cultural festivals, fairs and theatre can all help reach the target audiences.

Individuals and small organizations are likely to have fewer opportunities and resources for raising awareness of their work. However, a creative approach using all available occasions such as presentations at conferences and distributing information on your work through network newsletters will enable your work to become more widely known. A letter to the editor of a newsletter or newspaper has a low cost but can result in your words reaching a large number of readers.

10. Joining forces with others

The orphan and neglected characteristics of work on underutilized species are exacerbated by the paucity and geographic dispersal of practitioners. Fragmentation of effort and sub-optimal communication among stakeholders are common problems in this field. Networking through the GFU, ICUC and other common interest groups will create opportunities to learn about current work that has attracted support and about future funding opportunities, and help identify potential partners for joint approaches to donors. To read more on teaming up with partners, click here. ***<link to Box 8>***

Box 8: Ways of joining forces with others

A proposal based on a case study can be strengthened by adding other studies to provide contrasting cases and locations. Extending a project to include additional research components and partners amplifies the net expertise available to the project. It lifts it to a higher level of potential return on investment through efficient use of resources and capacity-building, albeit possibly introducing higher transaction costs, and increases its credibility and visibility. Choosing partners in other locations with strong links to end users, and partners in training institutions such as universities, can enhance the development impact and sustainability of the work.

The holistic nature of work on underutilized species calls for a multidisciplinary approach that will benefit from the creation of partnerships that bring in additional expertise to complement the natural science with social sciences, processing, marketing and other value-adding elements. Whenever possible, and if compatible with the donor priorities and funding guidelines, try to build these into your project as part of a broad-based work package. If the funding opportunity is too narrow to include multidisciplinary partnerships, point out the importance of the network of partners outside the project that have helped with priority-setting and conceptualization of the project, and will help create a solid foundation for its impact and sustainability.

Another approach to joining forces with others is to bring a component on underutilized species to a larger agricultural research or development project. These opportunities may not necessarily be very readily identified, but through networking with immediate and more distant colleagues, you may be able to find situations in which research on, for example, the diversity of medicinal plants could strengthen a social or medical science-based project with a human health emphasis. A development project on productivity improvement on marginal lands, on crop substitution, or on income generation from high added value local produce could include underutilized species with export niche market potential.

The benefits of joining forces with others are particularly evident for individuals and smaller organizations. However, it is well accepted that it will not always be possible to team up because of various constraints. Nevertheless, the work conveyed in a small, circumscribed proposal for funding should still be positioned well in respect to the work of others, emphasizing that, through networking, the impact of the work supported by the funding requested will be far-reaching.

A project's partnership network is an important resource to enlist in the task of fund-raising. This is most practical where there are pre-existing collaborative relationships, or where the project design process includes a project development phase. To read more on this, click here. ***<link to Box 9>***

The next two sections address the third key condition for success in fund-raising noted in Section 2, namely, a potential donor.

11. Identifying potential donors

As indicated at the outset, the GFU is not in a position to identify specific donors for specific projects, nor follow through with assistance in developing proposals. The task of identifying donors must be a shared one, and various information resources are available to assist in the challenge. As a contribution, the GFU has researched possible funding opportunities through contacting donors and establishing their interest in work on underutilized species. To see further details in the resultant database, click here. ***<link to database>***
(www.underutilized-species.org/documents/Funding_opportunities/donor_db.html)

There are an encouraging number of possibilities in the database, but few if any of these donors have explicit calls for proposals that identify underutilized species. Thus, they are interested in higher level issues such as agricultural development and elimination of poverty globally or in particular geographical areas. This returns us to the issue of the importance of positioning and presenting the work for which you are seeking funding. As an illustrative example, a review of current research in the CGIAR Centres reveals few projects that explicitly target underutilized species, but a significant number that either include them under a wider range of subjects or could logically include them, plus yet others that generate outputs relevant to underutilized species. This analysis provides an insight into the potential ways of packaging work on underutilized species to move it into the main stream. More information on the work of the Centres can be obtained via the links at: http://www.cgiar.org/centers/index.html.

Reviewing past or currently funded work of a similar or related nature is, of course, also useful to help identify potential partners and donors. Institutes will normally acknowledge their partners and the sponsors of projects in project-specific awareness-raising materials, research publications and institutional annual reports.

Allocating resources to fund-raising is a sound investment and is a valid component of research planning. Some donors provide funds for project development. One such donor is the Global Environment Facility (GEF), a significant supporter of work on agricultural biodiversity, This approach strengthens the conceptual basis of the project, builds more appropriate and solid partnerships, and provides the opportunity to develop an intermediate product that can be presented to potential donors of the larger proposed body of work. Moreover, sharing of information among partners in a proposed project is a valuable way of identifying potential donors. To read more on this click here. ***<link to Box 9>***

Donors only rarely respond to unsolicited proposals, but providing them with concise informative material can help introduce them to a new subject of potential relevance to their priorities. Thus, it is very useful to have available well-written and attractive single page flyers describing the proposed project, its partners and its key impacts. Remember that this is an “appetizer” that should enable the donor to judge quickly their level of interest and, when positive, want to ask for more information. The flier should include full contact details to facilitate follow-up.

The majority of donors are happy to see complementarity between their investment and that of other donors. Funding from multiple sources also brings credibility which encourages further donor interest. These factors, combined with the reality that a project of any significant size will be too large for any one donor to fund, speak for the need to compartmentalize large projects into fundable components. These collectively form a funding package to be sourced. As well as tackling the issue of budget limitations, this also allows for tailoring of project components to different donors' geographical priorities or thematic priorities such as capacity-building, information technology, legal issues, and so on. This may entail the development of both tailored flyers and tailored proposals, but is worth the investment of time to help the donor to "see the wood for the trees". To read more on this, click here. <link to Box 9>

Box 9: Assembling a funding package and sharing the effort of fund-raising

As noted earlier, it is often practical to divide a relatively large project into project components tailored to different donor priorities and funding capabilities in terms of the size of grant offered. Normally there should be documentation of the overall project within which different components will nest. For some donors this is essential and their support is identified as a share, e.g. 50% of the total funding across the range of activities, as is often the case for the GEF, or is linked to specific pieces of work, as is the case for the cofinancing parts of a GEF project. In any case, the institutes assigned to coordinate or carry out the overall body of work will need an overarching document to describe the project. It can be most practical to compartmentalise the project by circumscribed elements such as logframe Activities or Outputs linked to particular donors. This will help with budget development, drafting of the supporting sub-project proposals and with reporting to the donor.

There is always the risk of seemingly or actually being donor-driven when approaching the development of a funding package in this way. This risk can be contained by maximising the flexibility of each funding component, a determined approach to containing a project within its predetermined scope, and a balance of effort that gives adequate emphasis to seeking funds core components of the project upon which the other components depend chronologically or strategically.

In a body of work that is fortunate to have a funded project development phase, time and resources should be allocated to the development of a funding strategy, including the exchange of ideas among participants. Calling a meeting of partners or allowing time at a conference for a side meeting of partners can create an arena in which each can make suggestions for donors to approach (and not to approach). Together you can identify particularly difficult project components to fund and request suggestions accordingly, share experiences in interacting with particular donors, and identify opportunities for sharing the workload of fund-raising, including making joint approaches to particular donors. It is also possible to convene a meeting of potential donors as a side event at a conference to draw attention to the proposed wok and present opportunities for them to co-fund work of mutual interest.

With adequate planning and creativity, these meetings as well as shared donor visits can be achieved at relatively low cost. For example, a day or two added on to an existing workshop in a conducive environment can be well spent visiting national programme decision makers and ministers to encourage national cofinancing, and to embassies to encourage support from bilateral aid. Local industries or local representatives of international companies could be approached to sound out their interest. Visits should be prepared well. Coordination of donor contacts in a networked project is very important to avoid potentially irritating multiple approaches to the same donor, and to assemble the best team to make the case for the area of work for which funding is sought. The best team could include representatives from a national research system and from an international organization, each providing complementary technical, managerial and language skills. Concise and informative technical and public awareness materials should be prepared to leave with potential donors. Visits should be followed up by correspondence to thank contacts for their time, and to request feedback on any specific funding request made.

For individuals and small organizations, the above advice needs to be evaluated in the context of your own scope of work and institutional environment. However, you should not underestimate opportunities that can be created through networking and creating visibility for your own work. The following section should be read in the same spirit. A lot of the information on donor and funding typology applies to large organizations, but these organizations are potential partners who are always looking for linkages with other stakeholders who can bring a specific skill or connection to a project. They also may be in a position to channel funds to other, smaller partners whose comparative advantage in the relationship may be related to, for example, their NGO status, their grass roots contacts, or their linkages to extension services that can increase the reach of the project.

12. Donor and funding typology

When considering how to approach fund raising, it is useful to consider the different ways of classifying funds and their sources. Most organizations have a core funding base that is provided by their traditional donors including, for example, local or national government ministries, international aid budgets, or member subscriptions. Such funds are often termed “unrestricted” in the sense that the organization can use the funds as it best sees fit within the confines of its strategic planning. Individual scientists have the challenge of persuading their organization to direct these funds towards their own work to support research activities or to support pump-priming or pilot projects to help attract external funding.

Funds that are dedicated to a particular area of work and received in response to a proposal describing that work are termed “restricted”. Many organizations find that the scope for budget growth is in this area. Whilst this is challenging in that development of project proposals is time consuming and requires appropriate skills, it is positive in that it gives the individual scientist the opportunity to place their work in the funding marketplace where it can be judged on its merits. Sources of restricted funding include governments, United Nations and related agencies, development banks, foundations and individual private benefactors. To read more on this topic click here. ***<link to Box 10 below>***

Box 10: Donor and funding typology

Donors such as those to the CGIAR Centres and other international research and development organizations are often classified as “unrestricted“ or “restricted“. Unrestricted donors are those that provide a quantity of funds for the overall research agenda of the organization, with little or no specification as to the utilization of the funds. This is not to say that the donors are not interested in the use of the funds; indeed, their own policy-based processes of proritization and targeting come into play in the selection of institutes to support. Communication with unrestricted donors is usually through documents such as Annual Reports, Newsletters or other awareness raising materials, and through face-to-face meetings during donor visits, or at meetings and conferences. Because there are not specific projects upon which to report periodically to unrestricted donors, it is important to keep them up-to-date with progress in the work that they are helping to support.

Accessing unrestricted funding is an institutional issue. Where neglected species are a major component of the institute's research agenda, it will follow that donors are made aware of their importance in regular institute-donor interactions. Where they are one of many components, there will be an internal communications and lobbying task to lift the perceived importance of the work in the eyes of institute managers through making a strong case for the importance of the work to the achievement of the overall institutional objectives and describing the impact pathways involved. Where they represent a potential new area of work for the institute, the case needs to be made even more strongly if the institute is to divert resources. In all cases where the institutional agenda is changing it will be important to provide clear and concise public awareness materials explaining the case for the work to support communication with donors.

In a tight funding climate, many institutes have only very limited amounts of unrestricted funding at their disposal. However, one very effective use of the funds can be to invest in stakeholder consultations and/or pilot studies that help the institute gain competence in the work area, build strong partner networks, and help clarify needs and priorities. Thus, the unrestricted funds can act as pump-priming resources for additional funding of an unrestricted or restricted nature.

It should also be remembered that when staff whose salaries are covered by unrestricted funding are working on a project that is itself otherwise supported by restricted funding, their time is a real contribution to the overall project budget and should be costed accordingly. This provides a more accurate total costing of the work which will help future budgeting. Also, acknowledging unrestricted donors as a group or individually by name when they have supported work in this way is appreciated. Donor representatives sometimes struggle within their own agencies to maintain levels of unrestricted support because of a perception that they have less influence over the use of the funds and that the donations receive less visibility.

Restricted funding is by definition tied to specific activities, and is usually provided in response to a submitted written proposal. Much of the growth in funding to international research institutes over recent years has been through restricted sources, which provide an important way in which new research areas can be developed, and in which scientists have a direct opportunity to demonstrate the merit of their work and thereby help mobilize resources for their institute through presenting a strong case for support.

Unrestricted donors are usually national governments, but restricted donors fall into a wide range of categories. Governments provide restricted funding from their aid budgets either on a multilateral or a bilateral basis. The latter can involve the allocation of funds to a specific country either directly or through a partner organization such as an international or regional institute. National governments in developing countries can also provide research funds, usually to institutions within their own country. International organizations such as the agencies of the United Nations, the World Bank, regional development banks, foundations and individual private benefactors are yet other sources.

In order to maximise the support to a project, it can be useful to think in terms of resources rather funds. Cash inputs will almost certainly be needed for any new area of work, but they need not be the only way of getting the work done. To read more on this click here. ***<link to Box 11>***

Box 11: "Funds" or "resources"?

Cash contributions dedicated to a project's budget are undoubtedly the most desirable, but they are not the only way of resourcing the work. Your own time may be paid from another source but is a tangible, costed resource from which the project is benefiting. Where personnel costs are a line item in the budget, you can explore possibilities for adapting the work programme of colleagues, or meeting some of the workload by attracting time inputs such as sabbatical assignments or research students from a nearby university. Exchange programmes with or secondments from other institutes may provide opportunities to bring personnel and skills into the project at little or no cost. Could a colleague working on a particular thematic area currently focussing on a major crop use your chosen underutilized species as a subject for their work? Could some of the research work be packaged as a capacity-building opportunity as a research fellowship or Junior Professional Officer/Associate Expert assignment funded by a donor country?

Developing country partners who may have difficulty in raising or making cash contributions in exchangeable currency may be able to attract funds from their home institute or ministry, or a local benefactor from industry or commerce for in-country activities including hosting meetings as an in-kind contribution.

Research inputs such as gene sequences or post-harvest processing know-how might be sought free of cost from the developer, bringing them into the project as a partner, or requesting inputs as *pro bono* donations from outside the project. A computer producer or supplier could be approached to donate hardware or software at no or reduced cost. It will always be important to examine any risks associated with accepting donations of this type and make clear the relationship between the project and the donor, particularly in terms of intellectual property generated by the project and required forms of acknowledgement.

13. Managing donor relations

Relationships with donors are built up over time, and there is no better instrument for building donor confidence than a well-managed and successfully completed project. The donor will normally set out reporting requirements in the project funding agreement. As discussed in Section 4, these should be adhered to diligently. In addition, keeping the donor informally acquainted with progress through fliers, copies of articles, press releases, etc. will help maintain interest in the work over the lifetime of the project. Let actual and potential donors know about meetings where the work will be presented. Even if not able to attend, they are more likely to remember the work if extended this courtesy.

Scientists well recognise the importance of good project management, but many find their time so heavily committed that they risk neglecting the follow up to projects, including documenting outputs in an accessible form and working with public awareness colleagues to ensure that the project findings reach as wide an audience as possible, including donors. To help manage these pressures, adequate resources should be allowed within the project design, budget and time line, for monitoring, evaluation and documentation of lessons learned. This will help encourage take up of the project outputs, enhance impact and improve the design of follow-up activities. Some donors commission specific evaluation studies of the work they fund. This should be looked on as a positive involvement and opportunity for demonstrating what the project has achieved.

14. Recommended reading

On underutilized species:

GFU, 2004. Approaches and Decision Steps for the Promotion and Development of Underutilized Plant Species.
http://www.underutilized-species.org/documents/general_GFU/key_decision_making_steps.pdf

Sabine Gündel, Irmgard Höschle-Zeledon, Barbara Krause and Kirsten Probst, 2003. Underutilized plant species and poverty alleviation. Proceedings of the International Workshop on Underutilized Plant Species. Leipzig, Germany.
http://www.underutilized-species.org/the_latest/archive/pop_up/leipzig%20proceedings.pdf#search

Tom Hazekamp, 2004. Development of Underutilized Species - An Analysis of Best Practices based on Case Studies for Devil's Claw, Quinoa and Physic Nut.
http://www.underutilized-species.org/documents/best_practices.htm
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National Research Council, 1989. Lost Crops of the Incas Little-Known Plants of the Andes with Promise for Worldwide Cultivation.
http://www.nap.edu/books/030904264X/html/index.html

Rosamond L. Naylor, Walter P. Falcon, Robert M. Goodman, Molly M. Jahn, Theresa Sengooba, Hailu Tefera and Rebecca J. Nelson, 2004. Biotechnology in the developing world: a case for increased investments in orphan crops. Food Policy Journal *29*, 15–44, 2004, Elsevier Ltd. http://www.underutilized-species.org/documents/food_policy.pdf

S.Padulosi, T.Hodgkin, J.T.Williams and N.Haq, 2002. Underutilized crops: trends, challenges and opportunities in the 21st Century. http://www.ipgri.cgiar.org/nus/docs/sat21.doc

US National Academy of Sciences, 1996. Lost Crops of Africa: Volume I: Grains.
http://books.nap.edu/books/0309049903/html/index.html

IPGRI, GFU, M.S.Swaminathan Research Foundation, 2005. Meeting the Millennium Development Goals with Agricultural Biodiversity.
http://www.ipgri.cgiar.org/publications/pubfile+.asp?ID_PUB=1052

On fund raising and project proposal development:

M.Fuchs-Carsch 2002. Funding your own research: How to write a winning proposal.
http://iri.columbia.edu/~jhansen/fuchs-carsch08july.pdf

ISNAR, 2000. How to write a convincing proposal: Strengthening project development, donor relations, and resource mobilization in agricultural research.
http://www.isnar.cgiar.org/learning/Default209b.html

Helen Hambly Odame How to write a concept note. Based on: M.Fuchs-Carsch 2000 in ISNAR, 2000. How to write a convincing proposal (above).
http://www.farmradio.org/english/bdg/bdg5b.asp

Steven R. Tabor, Willem Janssen and Hilarion Bruneau (Eds.), 1998. Financing agricultural research: A sourcebook. ISNAR, the Hague.
http://www.isnar.cgiar.org/publications/books/FSB.htm