How to use these Decision Tree Diagrams

These Diagrams are one of three main outputs of the InterAgency Standing Committee Task Force on Safe Access to Firewood and alternative Energy in Humanitarian Settings (IASC Task Force SAFE). The other two outputs are the “Matrix on Agency Roles and Responsibilities for Ensuring a Coordinated Multi-Sectoral Fuel Strategy in Humanitarian Settings” and the International Network on Household Energy in Humanitarian Settings and its informational website, www.fuelnetwork.org. All three outputs provide practical guidance on developing effective, holistic coordination and response mechanisms for the range of concerns associated with the collection, supply and use of household energy in humanitarian settings. These Diagrams should be read in conjunction with the Matrix for guidance as to which clusters/agencies are responsible for ensuring that specific fuel-related activities are undertaken. For additional technical information, please refer to www.fuelnetwork.org and to the pre-loaded flash drive that accompanies the hard copies of these outputs.

The goal of these Diagrams is to address the range of and difference between fuel-related needs in the field – recognising that there is no single fuel or energy technology appropriate for use in all humanitarian contexts. Thus, the Diagrams present a clear means of determining which factors should influence the choice of fuel strategy in an individual setting, based on simple responses to a series of questions about local priorities, access, availability, etc. The term “strategy” is used to reflect the fact that many settings may require more than one type of fuel or energy technology, especially over the long term.

Recognising that short- and long-term fuel strategies may by necessity be different, the Diagrams cover two response phases: acute emergency and protracted settings. The acute emergency Diagram is particularly intended for emergency response teams, site selectors/site planners and camp managers at the outset of a new emergency and, as such, focuses on only the most essential fuel-related concerns. The protracted settings Diagram is intended for all field-based actors with responsibility for determining a long-term fuel strategy and, as such, provides guidance on the inter-linkages between a series of considerations and the cross-sectoral ramifications of each.

Importance of Participatory Assessments

Participatory assessment is a process of building partnerships with displaced communities by promoting meaningful participation by people of all ages and backgrounds through structured dialogue. An in-depth participatory assessment with refugee and IDP communities, as early as possible after their displacement, is important for a variety of reasons outlined in more detail at www.unhcr.org/protect.html. Specific to fuel, however, participatory assessments are key to ensuring the long-term viability and sustainability of a fuel strategy. Simply put, if the fuel strategy does not respond to the needs, habits and preferences expressed by the community itself, the community will seek other fuel options – including perhaps the unsafe or unsustainable options that these Diagrams are attempting to minimise.

A detailed methodology for conducting multifunctional participatory assessments is available at www.unhcr.org/protect.html. In addition, a questionnaire for beneficiaries specific to cooking fuel needs and preferences is available on the accompanying flash drive or can be downloaded from www.fuelnetwork.org.

It is imperative that participatory assessments with beneficiaries are conducted alongside the use of these decision tree Diagrams, as an integral part of the process for determining the most appropriate and effective fuel strategy in a particular setting.
Decision Tree Diagram for Choosing a Cooking Fuel Strategy in Acute Emergencies

Version 1.1., April 2009

**Box 1:** Are fuel sources locally available (for collection)?

Yes

1. Consider firewood patrols (A) or direct provision (B)

2. Are there unmarked landmines in collection areas?
   - Yes
     - Box 2.1: Assess considerations in Box 2.2, then adapt and implement template for patrol guidelines (see www.fuelnetwork.org)
   - No
     - Box 2.2: Assess both local laws/regulations (C) and environmental sustainability (D)

3. Is secure physical infrastructure in place for fuel transport?
   - Yes
     - B1.a. Calculate cost of materials, transport, distribution (as relevant)
     - B1.b. Seek dedicated funding and/or begin development of alternative fuel (see Box “Common Fuel/Energy Technology Options”)
   - No
     - B1.a1. Ensure sourcing/provision is in accordance with local laws/regulations
       - Yes
         - Box 2.2: Assess both local laws/regulations (C) and environmental sustainability (D)
       - No
         - Box 2.2: Assess both local laws/regulations (C) and environmental sustainability (D)

4. Is the fuel choice being considered sustainable? (continue at Box 2.2)
   - Yes
     - B2
   - No
     - B2

5. Are laws/regulations in place re: access to land/resources?
   - Yes
     - C
   - No
     - C

6. Is local fuel sourcing environmentally sustainable?
   - Yes
     - D
   - No
     - D

7. Are peacekeepers/CivPol/community-based protection mechanisms present?
   - Yes
     - A
   - No
     - A

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**Box 2:** Do protection risks inhibit collection?

Yes

8. Assess all 5 considerations (B1-B5) for each option before selection

9. Consider direct provision (see Box B) and/or begin development of alternative fuel (see Box “Common Fuel/Energy Technology Options”)

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**Box 3:** Consider direct provision (see Box B) and/or begin development of alternative fuel (see Box “Common Fuel/Energy Technology Options”)

Yes

10. Are relationships with hosts collaborative?
    - Yes
      - C/D1
    - No
      - C/D2

11. Is the fuel choice being considered sustainable? (continue at Box 2.2)

No

12. Consider a different fuel choice (see Box “Common Fuel/Energy Technology Options”)

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**Common Fuel/Energy Technology Options**

(See also protracted settings decision tree)

Can be directly provided:
- liquefied petroleum gas (LPG); ethanol; solar; kerosene; fuel-efficient stoves (FES - all models); charcoal; firewood; briquettes

(Often) locally available and less expensive:
- biogas (raw materials); mudclay FES; charcoal; firewood; briquettes

(Often) imported and more expensive:
- LPG; biogas (digesters); solar; metal FES

See www.fuelnetwork.org or accompanying flash drive for more information.

(Note: as used in both Diagrams, “fuel” encompasses any and all possible cooking fuels/energy technologies. See the methodology section, accompanying flash drive and www.fuelnetwork.org for additional information.)
### Decision Tree Diagram for Choosing a Cooking Fuel Strategy in Protracted Settings

**Version 1.1, April 2009**

#### Assessments

**Availability of Fuel**

- **1A. Materials**
  - Biogas (raw materials); multifuel fuel-efficient stoves (FFS); charcoal; firewood; agro-waste briquettes
  - Biogas (raw materials); multifuel FFS; charcoal; firewood; agro-waste briquettes

- **1B. Environment/climate**
  - All options may be considered after additional assessment of local sustainability
  - Consider only environmentally sustainable options (solar, biogas, sustainably-sourced ethanol, sustainably-sourced agro-waste briquettes)

- **1C. Amount of funds available for fuel provision**
  - Higher-cost options may be considered
  - Consider only lower-cost options (solar – cardboard models; multifuel FFS; firewood; agro-waste briquettes)

#### Options

**Physical protection risks associated with collection/production**

- **2A.1** All options may be considered with continued careful attention to the potentially-changing protection situation
  - Consider only options with lower protection risk: direct provision of fuel by designated authorities, and/or property-managed patrol or escort system

**Transport infrastructure**

- **2B.1** Externally-sourced options may be considered in addition to local options (combine at Box 1A)
  - Consider only locally-sourced options (see Box 1A, 1)

**Laws/regulations re: access to land, resources**

- **2C.1** All options that are in accordance with local laws/regulations may be considered
  - Consider only options that typically do not require favourable legislation (solar; FES)

**Relationships with hosts**

- **2D.1** All options may be considered (in collaboration with hosts)
  - Consider only options with a limited environmental impact and/or that are not dependent on hosts: solar; FES; direct provision of externally-sourced fuels

#### Additional Considerations

- **Local sourcing is typically less expensive**
  - Ensure local sourcing is environmentally-sustainable (see Box 1B)
  - Ensure funds are sufficient for long-term provision of externally-sourced fuels and begin development of less expensive alternatives

- **Solar cookers will require a secondary fuel for rainy season, etc.**
  - To lessen environmental impact over long term even in less fragile environments, if using biomass materials (firewood, charcoal, etc.), ensure mitigating measures are put in place (reforestation, etc.)

- **Relationships with hosts are especially important in fragile environments**
  - In determining cost, consider (as appropriate) cost of material, production, labour, transport, and/or distribution

- **Assess both start-up and ongoing costs**

### Use of Fuel

**Health/safety impact (during use)**

- **3B.1** LPG, solar; biogas; ethanol, kerosene
  - LPG, solar; biogas; ethanol, kerosene
  - LPG, solar; biogas; ethanol, kerosene

- **3B.2** Firewood, charcoal, most agro-waste briquettes, kerosene
  - Firewood, charcoal, most agro-waste briquettes, kerosene

- **3B.3** Manufacture or assembly of FES; manufacture of charcoal agro-waste briquettes; assembly of solar cookers; maintenance/repair of FES; solar; biogas, briquettes

**Possibilities for using fuels as livelihoods activity**

- **3C.1** Direct provision; LPG, kerosene
  - Ensure all livelihood options (including fuel-related) are environmentally-sustainable (see Box 1B) and in accordance with local laws/regulations (see Box 2C)

- **Assess market for re-sale by beneficiaries of directly-provided fuels (as an income-generation activity) and address consequences (e.g. possible resort to unsafe fuel collection for household needs)**

### Additional Considerations

- **Work with local authorities to ease legislative restrictions where possible**
  - If considering patrols/escort systems, see Acute Emergency Decision Tree, Box A

- **Continuously monitor protection situation; ensure that fuel collection does not increase protection risks**
  - If considering direct provision, undertake all five assessments noted in Acute Emergency Decision Tree, Boxes B1-B5

- **Ensure proper advance consultations with local authorities/hosts (see Box 2D)**
  - Work with local authorities to ensure proper consultation with local authorities/hosts

- **May be considered**
  - Work with local authorities to ease legislative restrictions where possible

- **If possible, provide fuel to hosts to reduce possibility of tensions, especially over long term and/or in resource-poor environments**

- **Ensure relationships with hosts are especially important in fragile environments**
  - If considering direct provision, undertake all five assessments noted in Acute Emergency Decision Tree, Boxes B1-B5

- **Continually monitor protection situation: ensure that fuel collection itself does not increase protection risks**
  - To lessen environmental impact even in less fragile environments, if using biomass materials (firewood, charcoal, etc.), ensure mitigating measures are put in place (reforestation, etc.)

- **Ensure that vulnerable populations always have sufficient access to fuel**

- **Use caution when considering higher-impact options, including: firewood, charcoal, direct provision of locally-sourced biomass resources (due to risk of environmental degradation; competition over access to resources); and biogas (due to possible regulations re: land ownership)***

- **If possible, provide fuel to hosts to avoidユニセフ relationships**

- **Work with local authorities to ease legislative restrictions where possible**

**Assess both start-up and ongoing costs**

- **Ensure that option chosen is in accordance with local laws/regulations**
  - Ensure proper advance consultation with local authorities/hosts

- **If possible, provide fuel to hosts to reduce possibility of tensions, especially over long term and/or in resource-poor environments**

- **Use caution when considering higher-impact options, including: firewood, charcoal, direct provision of locally-sourced biomass resources (due to risk of environmental degradation; competition over access to resources); and biogas (due to possible regulations re: land ownership)***

- **If possible, provide fuel to hosts to avoidユニセフ relationships**

- **Work with local authorities to ease legislative restrictions where possible**

### Additional Considerations

- **Work with local authorities to ease legislative restrictions where possible**

- **Ensure proper advance consultations with local authorities/hosts (see Box 2D)**
  - Work with local authorities to ease legislative restrictions where possible

- **Ensure local sourcing is environmentally-sustainable (see Box 1B)**
  - Ensure local sourcing is in accordance with local laws/regulations (see Box 2C)

- **Ensure local sourcing is typically less expensive**
  - Ensure funds are sufficient for long-term provision of externally-sourced fuels and begin development of less expensive alternatives

- **Solar cookers will require a secondary fuel for rainy season, etc.**
  - To lessen environmental impact over long term even in less fragile environments, if using biomass materials (firewood, charcoal, etc.), ensure mitigating measures are put in place (reforestation, etc.)

- **Relationships with hosts are especially important in fragile environments**
  - In determining cost, consider (as appropriate) cost of material, production, labour, transport, and/or distribution

- **Assess both start-up and ongoing costs**

### Additional Considerations

- **Work with local authorities to ease legislative restrictions where possible**

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The Inter-Agency Standing Committee (IASC) was established in 1992 in response to General Assembly Resolution 46/182, which called for strengthened coordination of humanitarian assistance. The resolution set up the IASC as the primary mechanism for facilitating inter-agency decision-making in response to complex emergencies and natural disasters. The IASC is formed by the heads of a broad range of UN and non-UN humanitarian organisations. For further information on the IASC, please visit its website at www.humanitarianinfo.org/iasc

Additional information on this publication can be found on the accompanying pre-loaded flash drive, or on the website of the International Network on Household Energy in Humanitarian Settings: www.fuelnetwork.org

For feedback and suggestions for the improvement of this publication, please e-mail: iasc@fuelnetwork.org

The Inter-Agency Standing Committee Task Force on Safe Access to Firewood and alternative Energy in Humanitarian Settings (IASC Task Force SAFE) wishes to thank all of the people and organisations that collaborated on the development of these publications during 2007 and 2008, especially the Task Force member agencies:

- American Council for Voluntary International Action (InterAction) – Co-Chair²
- Department of Peacekeeping Operations (DPKO)¹
- Food and Agriculture Organization (FAO)¹
- International Federation of Red Cross and Red Crescent Societies (IFRC)²,*
- International Organization for Migration (IOM)¹
- Office for the Coordination of Humanitarian Affairs (OCHA)¹
- Office of the High Commissioner for Human Rights (OHCHR)²,*
- UN Children’s Fund (UNICEF)¹
- UN Development Programme (UNDP)¹
- UN Environment Programme (UNEP)¹
- UN High Commissioner for Refugees (UNHCR) – Co-Chair¹
- UN Human Settlements Programme (UN-HABITAT)¹
- UN Industrial Development Organization (UNIDO) Khartoum*  
- UN Population Fund (UNFPA)¹
- Women’s Refugee Commission (working under the authority of InterAction) – Co-Chair and Secretariat
- World Food Programme (WFP) – Co-Chair¹
- World Health Organization (WHO)¹

Other standing invitees of the IASC are:

- International Committee of the Red Cross (ICRC)
- International Council of Voluntary Agencies (ICVA)
- Representative of the Secretary-General on the Human Rights of IDPs
- Steering Committee for Humanitarian Response (SCHR)
- World Bank

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¹ IASC Member Agency  ² IASC Standing Invitee  * part-time Task Force member