

1 **I. Introduction**

2 **A. Alternatives sources for Bio-fuel**

- 3 1. The recent production of bio-fuels stimulates concern for international agricultural
4 production, global climate change and rising food prices. Food availability is reduced
5 when agricultural crops are allocated for bio-fuel production and non-food purposes
6 which leads to increasing food prices and food insecurity. The primary concern to
7 development of bio energy is the potential impact on food security, sustainable
8 agricultural production, and rural development.
- 9 2. Sustainable agricultural production is necessary for the accomplishment of the
10 Millennium Development Goals to reduce poverty and hunger. Environmentally efficient
11 production of bio fuels will be profitable for the global community due to the income
12 provided to agrarian producers and exports to developing countries if production does not
13 utilize sources that compete with the world's food supply.
- 14

15 **B. Promoting global research policy**

- 16 3. Under the threat of climate change and at the peak of oil use, the development of
17 renewable energy sources has established itself as an important priority. Considering the
18 fact that 850 million people are still suffering from hunger even though a sufficient
19 amount of food is being produced, we must question whether bioenergy production
20 competes with food availability and puts additional pressure on food prices. There is a
21 need for a multi-faceted approach.
- 22 4. According to Secretary-General Ban-Ki Moon "there is an urgent need for international
23 policy guidelines on biofuels". It is imperative that all nations can access information on
24 the costs and benefits of adopting biofuel technology. This information should be derived
25 from scientific studies and evaluated in the context of energy conservation, carbon
26 emissions and environmental as well as human health in the long-term. Transition to
27 biofuel economies shall require sufficient management of existent energy resources and
28 the eradication of wasteful practices. Several production paths for biofuels are known to
29 produce significant amounts of carbon emissions. Deforestation and conventional
30 agriculture also release carbon into the atmosphere and further disrupt the natural balance
31 of global carbon cycles. The international community must confront current problems
32 with unsustainable patterns of energy consumption in all economic sectors before putting
33 too much faith in the potential for bioenergy production. Therefore, research into the
34 effects of bioenergy on food security specifically is vital to sustaining economic
35 development.
- 36 5. With respect to the grave environmental effects of climate change and deforestation, and
37 the importance of fighting poverty and hunger worldwide, and being fully aware that the
38 global food crisis threatens to undermine the achievements of the world community in
39 reducing world poverty and hunger, the Food and Agriculture Organization strongly
40 supports the High-level Task Force on the Global Food Security Crisis, established under
41 the chairmanship of the Secretary-General and bringing together the heads of the United
42 Nations specialized agencies, funds and programs, Bretton Woods institutions and
43 relevant parts of the UN Secretariat, in order to create a prioritized plan of action and
44 coordinate its implementation.
- 45

46

47 **C. Long-term Studies and Strategies on Bioenergy**

- 48 6. Bio-energy has been developed during the last years to reduce pressure on the
49 environment and develop different and diverse energy sources to increase security among
50 nations. Time has come to evaluate the role of the biofuels production and its effects on
51 diverse areas of concern in food security.
- 52 7. According to Trostle, short-term impacts on food security have been seen during biofuel's
53 recent increases in production. In his report it is seen that biofuel production has increased
54 over threefold.

55

56 **D. New Research and Non-food based Bioenergy**

- 57 8. The FAO is aware of new studies, which reveal that about 900 million people are unable
58 to adequately access their fundamental right to food. Article 11 of the International
59 Covenant on Economic, Social, and Cultural Rights of 1966 recognizes every individual's
60 right to food.
- 61 9. The FAO recognizes that the sharp increase in energy prices has subsequently led to high
62 food prices, creating a heavy burden for the citizens of developing countries to gain access
63 to adequate food supplies.
- 64 10. While the FAO understands the potential benefits of biofuels as an alternative source of
65 energy, it is necessary to dedicate more efforts into research of their impact, and to try to
66 develop new technologies and sources of energy that are renewable and, therefore,
67 environmentally friendly.

68

69 **E. Public Policies on Bioenergy**

- 70 11. The Food and Agriculture Organization (FAO) recognizes the effect of the developed
71 states biofuel industry on the developing states, especially in times of natural disasters.
- 72 12. Recalling the experiences of the World Food Crisis of 2008 in which the food security
73 was severely endangered by the protection measure of food exporting countries. This food
74 security endangerment gravely affected the developing countries that are relying on food
75 imports.
- 76 13. The FAO acknowledges the need to monitor and regulate the policies of the food
77 exporting countries in order to better address the stability of the world food supply.

78

79 **II. Mandate**

80 **A. Alternatives sources for Bio-fuel**

- 81 14. Bio-energy is becoming an increasingly important aspect for all nations due to the
82 increase in oil prices and the natural limitation of oil. Bio-fuels are now in the position to
83 provide numerous opportunities for the agricultural community that will alleviate the
84 pressure on fossil fuels while providing an environmentally sustainable fuel source.
- 85 15. The Global Bio-energy Partnership has provided guidance to countries on environment
86 and socio-economic conditions that support sustainable production.
- 87 16. Several reports have been established by the FAO and other UN bodies like The State of
88 Food and Agriculture 2008. The FAO aim is to raise awareness on this topic and to find
89 sustainable solutions.

- 90 17. The International Food Policy Research Institute and the organization for economic
91 cooperation and development suggest that increase food prices will sustain and impede
92 global efforts to eradicate poverty and hunger.
93 18. High-level conference on world food security is a top priority and goals of energy policy
94 need to be conducted in ways that do not threaten food security.
95

96 **B. Promoting global research policy**

- 97 19. Bearing in mind Target 3 of Millennium Development Goal 1 (A/RES/55/2), the Food and
98 Agriculture Organization strongly welcomes the Declaration adopted by the FAO High-
99 Level Conference on World Food Security: The Challenges of Climate Change and
100 Bioenergy, held 3-5 June 2008 in Rome.
101 20. Furthermore, the Food and Agriculture Organization created the Special Programme for
102 Food Security aimed at replicating successful food security practices on a national scale.
103 The SPFS also encourages investment in rural infrastructure, off-farm income generation,
104 urban agriculture and safety nets.
105 21. The FAO recognizes the “United Framework Convention on Climate Change” which
106 supports bioenergy as one of the “Precautionary measures to anticipate, prevent and
107 minimize the cause of climate change”.
108 22. Recognize the third theme of the UN Industrial Development Organization (UNIDO) goal
109 is to develop environmental energy, acknowledging this world to be cooperative with
110 business, government, and citizens.
111

112 **C. Long-term Studies and Strategies on Bioenergy**

- 113 23. The Global Bio-energy Partnership (GBP) and the International Bio-energy Platform
114 (IBP) remains committed to promoting awareness in developing states about the best
115 practices of implementing the development of and production of biofuels. The awareness
116 program will illustrate the ways food security is not impacted. The GBP and the IBP work
117 to coordinate knowledge management, provide key interest areas, support development of
118 biofuels by providing data information of best practices, and describe the success and
119 short comings of biofuels. These efforts include the integration of biofuels into current
120 country practices.
121 24. The FAO believes there is a need for long-term studies that will expand upon the already
122 in place efforts to study the short-term impacts of the recent increase in biofuel production
123 on food security.
124

125 **D. New Research and Non-food based Bioenergy**

- 126 25. The FAO recalls Millennium Development Goal 1, which addresses the issue of
127 eradicating poverty and hunger by 2015.
128 26. The FAO has made several partnerships with the World Food Programme, such as the UN
129 Network on rural Development and Food Security, and the Initiative on Soaring Food
130 Prices. The FAO provides monetary and technical assistance, while the WFP delivers the
131 aid.
132 27. The FAO is familiar with the High-Level Conference on World Food Security: the
133 Challenges of Climate Change and Bioenergy.
134 28. The FAO has developed its own Bioenergy and Food Security Project (BEFS), which
135 examines the positive and negative impacts of bioenergy.

136

137 **E. Public Policies on Bioenergy**

- 138 29. According to *The State of Food and Agriculture (2008)*, it has been stated the implications
139 of having policies endorsing subsidization of staple-food production for the purpose of
140 biofuel production. In this report, it has been identified the necessity to have policies
141 working on multiple sectors of market.
- 142 30. The major impact produced by subsidies for edible crops directed for biofuel, has been
143 clarified on the High Level Conference on World Food Security: *Soaring Food Prices*
144 (*Facts, Perspectives, Impacts and Actions Required*), listing as major consequences the
145 shift of type of crop plantings, shift of crop utilization, increase of investment on arable
146 land.
- 147 31. The Article 2 of the UN Charter clearly emphasizes the importance of each country's
148 sovereignty to enact all policies and regulations, in unison with their domestic current
149 situation.
- 150 32. Recalling the International Bioenergy Program (IBEP), and High-Level Conference on
151 WFS: *The Challenges of Climate Change and Bioenergy*, it has been identified the need
152 for the participation of funding organizations as well as private investment for the purpose
153 of mitigating the impact on climate change, along with empowering rural and agricultural
154 development.
155

156 **III. Conclusions**

157 **A. Alternatives sources for Bio-fuel**

- 158 33. The FAO recognizes the increasingly harmful effect that fossil fuels have on the
159 environment and global climate change. In order for countries to produce bio-fuel and bio-
160 mass crops efficiently, there must be a system in which the production potential is
161 evaluated.
- 162 34. Bio-energy offers an environmentally cohesive source for alternative energy security due
163 to its reduced amount of greenhouse gas emissions but production of bio-fuels must be
164 monitored to ensure food crop allocation for bio-fuel production that does not infringe
165 upon the world food supply. As well as making sure that consumers are aware of the type
166 bio-fuel that is being utilized in a particular fuel source.
167

168 **B. Promoting global research policy**

- 169 35. Biofuels can be an economically viable alternative and have an immediate use to partially
170 substitute petroleum by-products and to diversify the world energy matrix. The use of
171 biofuels can bring advantages to both developing and developed countries, if it is not
172 produced from staple-food crops. For developing countries, the use of biofuels means
173 reducing their dependence on imported oil, improving their trade balance and saving
174 revenues, to increase investments in health and education. In addition to offering
175 environmental benefits, producing biofuels promotes the generation of income and
176 contributes to the reduction of rural to urban migration. For developed countries, the use
177 of biofuels is also attractive because it reduces dependence on fossil fuels, contributes
178 towards reduction in emissions of greenhouse gases, in addition to guaranteeing greater
179 energy security. Biofuels have the potential to mobilize investments in research and

- 180 associated technological development, which gives further momentum to the process of
181 changing established patterns of energy use on a global scale.
- 182 36. Investments in research are the basis for the development of agricultural production
183 technologies, enabling the identification of the most appropriate plant species, the most
184 efficient production systems and the regions with the highest production potential. New
185 industrial technologies constitute the essence of the transformation of agricultural
186 products into biofuels.
- 187 37. The development of second, third and fourth generation biofuels will reduce pressure on
188 food prices and in addition, through increasing the use of biofuel, green house gas
189 emissions will be decrease, improving the state of the agriculture currently existing. The
190 principles of flexibility and learn form experimentation, which is a key mechanism
191 bridging the gap between policies and realities while reducing misinterpretation, must be
192 kept in mind while evaluating the success of biofuel initiatives. All national sectors linked
193 to the agro-energy chain of production shall come together to face this challenge.

194

195 **C. Long-term Studies and Strategies on Bioenergy**

- 196 38. The FAO believes that the implementation of regional long-term strategies to monitor
197 biofuel's impact on a country's overall food security will justify the further promotion of
198 studying and developing 2nd, 3rd and 4th generation biofuels.
- 199 39. As a result of this long-term study, each nation will have an overview of the long-term
200 dilemmas that could be faced on the matter of bio-fuels and that state will be able to build
201 concrete local strategies to help overcome any lack of food supply.

202

203 **D. New Research and Non-food based Bioenergy**

- 204 40. It is necessary to recognize that the use of biofuels has yet to be fully explored, and
205 therefore, States should invest into more research into the long- term effects of biofuels on
206 food security and environmental sustainability.

207

208 **E. Public Policies on Bioenergy**

- 209 41. Extensive studies by the *World Food Program* have demonstrated that the large subsidies
210 that the developed countries (such as the United States of America, the European Union,
211 Canada, Australia, Switzerland summing approximately 8 billion US\$) provided for the
212 support of using consumable agricultural products for biofuel production have made a
213 direct impact on the practices of food production and the patterns of agriculture.

214

215 **IV. Recommendations**

216 **A. Alternatives sources for Bio-fuel**

217

- 218 42. The FAO urges Member States to utilize high-yield crop seed for the development of food
219 production and utilize high-energy crop seed for energy crops, and expand the cultivation
220 of arable land for the use of food production with regard to natural environment regional
221 utilizing existing resources while considering and minimizing potential impacts on the
222 environment.

- 223 43. It is recommended that Member States, NGOs, and United Nations organizations provide
224 financial incentives to small farmers in developing states, such as micro-credit, as a means
225 to buy high-yield crop seeds if these small farmers use land to plant both energy crops and
226 food crops in a ratio that is most appropriate for a particular Member State.
- 227 44. Member States must cooperate to measure the agricultural processes to prevent the over
228 consumption of water usage, carbon-dioxide and other greenhouse gas emissions, and
229 desertification. The FAO encourages Member States to moderate the proportion of land
230 being designated for bio-fuel.
- 231 45. The FAO promotes the development of mapping the bio-energy capacity of each country
232 and bio-production potential. The FAO urges the development of bio-fuels using
233 resources other than major food products including agricultural waste, wood biomass, and
234 seaweed, while incorporating measures to maintain environmental compatibility.
- 235 46. The FAO urges Member States to continue diversification within energy consumption and
236 encourages states to increase the amount of renewable energy sources within domestic
237 energy policy.
- 238 47. The FAO will establish a working group called Food and Agricultural Bio-fuel Standards
239 (FABS) to examine the relationship between bio-fuel production and food security. The
240 international community must collectively establish and implement sustainable production
241 standards for bio-fuel crop yield evaluating the demand for food and the effects of
242 population growth; to ensure food standards, alleviate poverty, and preservation of the
243 environment. The FAO must also encourage Member States to make known which raw
244 materials were used in their bio-fuel process.

245 **B. Promoting global research policy**

- 247 48. The FAO firmly advises that the Right to Food (A/RES/62/164) and Human Rights be
248 considered as non-negotiable preconditions that must be considered in all aspects of the
249 promotion of sustainable biomass strategies. Any decision made in regard to bioenergy
250 development has to be guided by human rights principles.
- 251 49. In order to reach a consensus on sustainability standards for all agricultural commodities
252 at an international level, and in order to induce a new economic equilibrium between
253 nations by organizing the global community toward renewable energy and bioenergy
254 channels, which would be achieved by reducing the asymmetry between nations and
255 insisting on international solidarity, the FAO strongly recommends active government
256 measures to strengthen and to protect local producers by placing the emphasis on:
- 257 a. The defense of land ownership and the formation of legal entities;
 - 258 b. The establishment of adequate investment codes that are based on
259 partnership and co-development, as well as the reduction of market-
260 distorting policies;
 - 261 c. The necessity to respect, protect and fulfill the Right to Food, thus
262 refraining from all activities that have a negative impact on food security,
263 and allocating available resources toward achieving it;
 - 264 d. The application of the Voluntary Guidelines, who calls governments to
265 identify the most vulnerable groups, analyze the causes for food insecurity,
266 monitor the impact of policies, and create recourse mechanisms;
 - 267 e. The recognition of the international dimension of the Right to Food, which
268 implies that national policies do not harm food security elsewhere, by
269 combining the assessment of potential benefits and risks of national
270 bioenergy production with the establishment of a national strategy for
271 sustainable bioenergy with a global perspective.
- 272 50. Hence, the FAO is committed to developing and establishing a checklist for national
273 bioenergy policies that would be based on the Right to Food in order to help develop
274 field-oriented policy-monitoring systems. As a base for the establishment of this

275 checklist, the FAO recommends using the experiences of various existing bioenergy
 276 projects, particularly in Africa, in order to develop internationally accepted and coherent
 277 standards aimed at reducing negative impacts on food security, and to ensure ecological
 278 and social sustainability.

279 51. Furthermore, the FAO is dedicated to providing assistance to developing countries in
 280 order to improve their food security situation by:

- 281 f. Placing the focus on countries that are already suffering the consequences
 282 of the rising of food prices;
- 283 g. Collaborating with regional and local organizations in developing countries
 284 in order to identify the roots of the problem;
- 285 h. Privileging the following four areas of action:
 - 286 i. Food Security;
 - 287 ii. Research and Development in the field of 2nd, 3rd and 4th generation biofuels;
 - 288 iii. Production of alternative and effective biocellulosic biofuels;
 - 289 iv. Creation and reinforcement of international partnerships;
 - 290 i. Encouraging the G8 to cooperate and support the cause, as it was
 291 committed in the 2007 Heiligendamm Summit Declaration;
 - 292 j. Suggesting that donor states remain committed to the expansion in
 293 providing assistance to burgeoning economies, by sharing expertise on
 294 innovative technologies and biotechnology.

295 52. Moreover, the FAO encourages global research initiatives to focus on trends in various
 296 development sectors, and promotes the increased status and global awareness of the BEFS
 297 program. Additionally, the FAO endorses experimentation of biofuel and sustainability in
 298 the ecological system. Such experimentation should also consider the risk in global food
 299 production as well as the impact of biofuel in food prices. The focus should also be
 300 placed on the efficiency of biofuel by considering the impact current investments have on
 301 second-generation crops. The FAO encourages other biofuel producers to balance
 302 responsibly and to conciliate biofuel and food production. Finally, investment in
 303 researching the effectiveness of future technology developments to ensure that such
 304 initiatives are sustainable and efficient is strongly encouraged.

305 53. The FAO recommends the development of research initiatives by individual nations to
 306 assess the form of bioenergy that is the most adaptable to their resources; for example, the
 307 Institute of Energy, which is a combined institute of research concerning crop production
 308 and bioenergy in Turkey. Countries should utilize their own basic resources and their
 309 geographical position to their advantage in order to utilize the most cost-effective means
 310 of producing bioenergy, such as the use of solar and wind energy. The emphasis should
 311 be placed on developing alternative forms of biofuel that would have the least impact on
 312 food production.

313 54. Additionally, the FAO reaffirms its Agricultural Development and Rural Roads
 314 Rehabilitation Program (ADRRP), which functions to develop an agricultural ministry,
 315 road and rural infrastructure, productivity of existing crops, and management skills in an
 316 effort to preserve traditional agriculture.

317 55. The FAO emphasizes research and development in the biofuel sector. This research
 318 should try to focus on input for the production of biofuel, due to the issue of food security
 319 around the world. By changing the input for biofuel to non-staple food sources, such as
 320 waste and algae, the use of biofuel could be increased, thus decrease the use of fossil
 321 fuels. This would lead to a decrease in carbon emission and contribute to the goals set for
 322 preventing climate change. The focus should be on supporting the use and advancement of
 323 technology through cooperation among member states, Non-Governmental Organizations,
 324 civil society organizations, and multinational organizations.

325

326 **C. Long-term Studies and Strategies on Bioenergy**

327 56. The FAO will implement the long-term study which will help the developing states
328 evaluate their current resources in order to find what will produce the most efficient
329 agriculture development and outcomes without negatively impacting their food security.
330 The long-term program is used to help developing countries and worlds poorest
331 populations to use 2nd and 3rd generation biofuels which will enhance their ability
332 improve their energy sustainability and not impact their overall food security access.
333

334 **D. New Research and Non-food based Bioenergy**

335 57. We strongly encourage all nations to recognize every human's right to food as regardless
336 of ethnicity, gender, age, or socioeconomic status as stated in the Human Rights Council
337 Resolution 7/14. It is imperative that nothing impedes their access to an adequate supply
338 of food.
339 58. Due to the limited availability of non-renewable resources, we call upon all nations to
340 consider utilizing sustainable alternative sources of energy such as solar, wind,
341 hydropower, and peaceful, monitored nuclear energy programs. We also encourage the
342 use of bio-energy in the form of non-food based crops such as grass-based bio-fuels as
343 used in China, seaweed derived bio-fuels utilized in coastal regions and agricultural waste
344 turned into energy as used in Bangladesh, biogas derived from organic household waste as
345 used in Panama, jatropha plant grown in Nigeria which is inedible.
346 59. We acknowledge the need for a gradual transition from reliance on non-renewable
347 resources such as oil and other fossil fuels towards more environmentally friendly forms
348 of energy. This is a crucial goal to ensure that food security is not threatened.
349 60. We suggest the implementation of financial incentives for crop producers including small
350 farmers to promote the growth of viable food crops solely intended for food consumption
351 to achieve self- sufficiency in food production for each respective nation. This will help
352 bring the global community closer to achieving Millennium Development Goal 1.
353

354 **E. Public Policies on Bioenergy**

355 61. The FAO calls upon the states which utilize subsidies for their consumable crop biofuel
356 production to reduce their implantation of such programs which lessens their ability to
357 export food to those countries in need.
358 62. The expansion of policies endorsing investment into the developing countries from the
359 developed countries is a critical step in ensuring the ability of the developing countries to
360 implement their own national second generation biofuel production programs. Foreign
361 Direct Investment (FDI) is the prime form of capital investment which will utilize the
362 ability of the developed nations to incorporate the second generation biofuel production
363 into the economy of the developing state. The ability of the incoming assistance is fully
364 reliant on the biofuel production being placed on non-arable land which will not hinder
365 consumable food production.
366 63. This exchange, coordinated by the FAO, will require the full cooperation of all the parties
367 involved. The sovereignty, safety, and well-being of the developing nation must
368 consistently remain the fore-front priority. The recipient state is asked to provide legal
369 support toward security and protection of the incoming investment. Implementing these
370 measures will provide security and stability in the region in regards to food and fuel
371 production.