

Expert workshop April 26-27, 2001*“get down to real work”*

UNEP Regional Office for North America, Washington D.C

Workshop Report

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The Expert workshop on Poverty Mapping jointly organized by UNEP, FAO and the CGIAR and held at UNEP's Regional Office in Washington DC was able to attract 20 experts representing almost as many organizations: FAO; CGIAR: CIAT, IFPRI, TAC; UNEP: RONA, GRID-Arendal, The World Bank, WRI, UNDP, WHO, IUCN, WWF, NORAGRIC, Berkeley University and Macro International). A truly cooperative 'network' joining their forces in the difficult task of mapping poverty.

The aim of the workshop was to link broader issues - the general research questions poverty mapping can address – to concrete action within the project: country case studies, methodological studies, global datasets and concrete products, such as a website, maps and graphics from the network.

2. General Research questions that poverty mapping can address**Guidelines for Global Database and Case studies**

The following questions will guide data collection, analysis and mapping. Question 1 is designed to be tackled by both global and country case studies.

Case study proposals should indicate what can be done towards this analysis for the country proposed for the case study. Either question 2 or question 3 can be the focus of the analysis for a country case study proposal. All country case study proposals should have a section on question 4, which will also be addressed via the global database.

- 1) Where are the poor, in particular the rural poor, located at global and country scales in relation to:
 - Agroecological zones
 - Marginal or productive lands
 - Major foodcrop and/or livestock production systems, in particular those important to food security for the rural poor. Use of the World Bank Vision for Action Farming Systems framework for this is advised. Variants on this approach are encouraged and should be presented as a comparison with the Vision for Action framework
 - Market access
 - Population density
 - Key environmental “hotspots” or fragile areas vulnerable to degradation by agriculture: soil, biodiversity, forest

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- Livelihood systems defined using the FAO/DFID approach. Variants on this approach are encouraged and should be presented as a comparison with the FAO/DFID framework
- 2) What is the spatial relationship among poverty, specific nutritional deficiencies, specific agricultural interventions (foodcrop, tree and/or livestock) relevant to relieving these nutritional deficiencies, and key environmental variables?
 - 3) Where are the poor, and in particular agricultural production systems and/or livelihood systems associated with high levels of poverty, at risk from climate change: in what agroecological zones, production systems and environmentally fragile areas is this risk likely to be most acute?
 - 4) What lessons have been learned about the use of different poverty mapping methods? How do different methods compare in terms of cost, data requirements, ease of use, or other criteria you propose. Case studies are encouraged to use existing poverty mapping or the data to complete a poverty map using one of the methods reviewed in Davis, 2001, FAO document, so that they can take part in a comparison of methods across the country cases.
 - 5) What are the challenges or opportunities to institutionalize the use of the products from the case study?
 - 6) How can we represent information at the household level and use it analytically at national scale or larger?
 - 7) What are the scenarios for future poverty by 2015? (Global Data set). What is the joint probability being vulnerable from environmental degradation and poverty? This would be a multi-country study.

1. Country Case Studies

In addition to questions 2, 3 and 4 above, the following criteria for case study selection could include:

1. Data availability
2. Capacity to carry the proposed analysis
3. Significance of the aggregate poverty of the country proposed and its importance as a target for ODA and for CGISR research.
4. Importance of environmental impact by agriculture- actual or potential
5. FIVMs team capability in the country for institutional follow up.
6. Prospect of WB poverty mapping project contributing to the poverty map in the country proposed and/ or a DHS assets index can be used.
7. Potential to provide a baseline study for a future agricultural intervention which can later be followed up for an impact assessment study. The nature of the intervention should be described and a counterfactual for the impact assessment should be proposed.
8. Potential usefulness of the study to decision making.
9. Opportunity to compare methods within or across case studies.
10. Opportunity to develop spatial thinking (eg targeting of specific areas for intervention).
11. Opportunity for crossover between the global and the country data sets (for example a comparison of the results of analysis at two different scales)

CIAT to draw up general terms of reference and seek participation from CG Centers. Given the limited budget for the country case studies, 3 or 4 country case studies will be sought.

4. Complementary Methodological Case Studies

state of the art gis (codename: andy nelson innovative spatial thinking)

bottom-up global poverty map: (codename: deichMANN, bigMAN)

The workshop participants agreed that it may be an appropriate, however challenging task for the project to come up with a global poverty map based on national census and household survey data

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Traditional, 'top-down' global mapping approaches usually combine existing global datasets, such as population density, nightlight, ecosystems etc. to create approximated maps of 'vulnerability', 'food insecurity' or also 'poverty' as such. It is expected that the reliability and also the usefulness of a 'bottom-up' poverty map will be higher than that of a 'top down' one, it may however be very difficult to integrate and cross-compare census based poverty maps to the global scale. The workshop agreed upon commissioning a methodological study looking at the feasibility (and also associated inputs and eventually costs) for compiling a global, bottom-up poverty map.

5. Global Datasets (Ergin Ataman)

The workshop has decided that the following questions will guide the data collection, analysis and mapping both at the global level and for the country case studies.

- 1) Where are the poor, in particular the rural poor, located at global and country scales in relation to:
 - Agroecological zones
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 - Major foodcrop and/or livestock production systems, in particular those important to food security for the rural poor. Use of the World Bank Vision for Action farming systems framework for this is advised. Variants on this approach are encouraged and should be presented as a comparison with the Vision for Action framework
 - Market access
 - Key environmental "hotspots" or fragile areas vulnerable to degradation by agriculture: soil, biodiversity, forest
 - Livelihood systems defined using the FAO/DFID approach. Variants on this approach are encouraged and should be presented as a comparison with the FAO/DFID
- 2) What is the spatial relationship among poverty, specific nutritional deficiencies, specific agricultural interventions (foodcrop, tree and/or livestock) relevant to relieving these nutritional deficiencies, and key environmental variables?
- 3) Where are the poor, and in particular agricultural production systems and/or livelihood systems associated with high levels of poverty, at risk from climate change: in what agroecological zones, production systems and environmentally fragile areas is this risk likely to be most acute?
- 4) What lessons have been learned about the use of different poverty mapping methods? How do different methods compare in terms of cost, data requirements, ease of use, or other criteria you propose. Case studies are encouraged to use existing poverty mapping or the data to complete a poverty map using one of the methods reviewed in Annex 3 (Davis 2001, FAO) so that they can take part in a comparison of methods across the country cases.

The following global maps were discussed for development by the Project. It was decided that these maps need to be prioritized in view of the 4 points above and a cost estimate should be made before making a decision which ones should be realized.

- **Global Poverty Map** (by admin boundaries and/or If possible gridded). Two approaches for making this maps should be explored:
 - i) based on survey/census data
 - ii) using nightlights and other top down approaches such as accessibility and combining some of the maps below for assessing environmental conditions
- **Global potential food self-sufficiency at various levels of inputs/management:** (1:5,000,000)

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- **Population density projections for 2005, 2010, 2015;**
- **Irrigated areas map at 5' grid resolution (or finer);**
- **Irrigated cropping patterns (scale needs to be determined);**
- **Hydrological correct Digital Elevation Model** (a 1 km grid resolution USGS dataset already available, needs improvement);
- **River basins**, already available for Africa, needs to be developed for the rest of the world.
- **Population distribution linked to environmental conditions;**
- **Generate new global land degradation map including links with population, environment and land use (scale 1:10 million with windows at 1:5million and 1:2.5 million);**
- **Generate a global land use map at subnational level (scale 1:1 million);**
- **Update Global AEZ database/Maps with climatic variability parameters include natural disaster risks (1:5,000,000);**
- **Agricultural water use (scale 10 km grid);**
- **Water resources availability (scale 10 km grid);**

6. Website and Products from the Network, Digital Atlas

The workshop participants agreed that there is a need for the project to come up with information products, such as maps, graphics, papers etc. rather sooner than later. Here – before the various case studies will have generated outputs – the project will have to rely on existing information and data within the network, which should be systematically collected from the partners.

GRID-Arendal will operate the project's website under its own domain name: povertymap.net making all relevant povertymapping outputs available to the public. The workshop did however emphasize that printed materials and information published on CD-ROM will nevertheless be of importance.

The following products are to be published by the poverty mapping network, initial priority will be put on the website and the more visible 'propaganda' materials:

- Website. containing everything on povertymapping, including links. it will be relevant to closely cooperate with the World Bank's poverty net on this. A proposed layout is displayed below, the website will be accessible for internal use by the end of may, it is planned to launch it to the outside world at a high profile event before the end of 2001.
- presentation. A power point presentation on what is poverty mapping. with particular regards to the project should be made available on the website. Depending on the needs of the network partners, this can later also be published in printed form (flyer)
- maps and graphics: Existing poverty maps and graphics will be systematically collected, graphically enhanced and made accessible on the website. A 'awareness package', a sampler of 'best practices in poverty mapping' will be published as a booklet, to be launched simultaneously with the website towards the end of 2001. Eventually, the maps and graphics collection will also be published on CD-ROM together with the GIS data.
- gis data. data in gis format arising from the project will be made accessible to the public domain. the initial project stage will focus on a user's survey and also assess existing tools to publish GIS data on-line. copyright issues will also need to be analyzed during project start-up. Actual data is expected to be published during the second project phase (2002-2003)
- how to: serving as a poverty mapping forum, the project will systematically collect scientific papers and articles about the subject and publish them on the web site. Specific methodological studies on topics of common interest will be commissioned and published. At the initial stage, focus will be on electronic publication only.

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network. links to the relevant poverty mapping website will be systematically collected and updated and published on povertymap.net. the website will also announce 'news' items of relevance to the poverty mapping community.

Expert workshop April 26-27, 2001 *"get down to real work"*

Venue: UNEP RONA, suite 300, 1707 H street, NW, Washington, DC

Workshop objectives: to give the project clear directions and focus areas

Foreseen outputs of the workshop:

1. research questions that poverty mapping can address
2. criteria for country case studies,
3. criteria for developing global datasets
4. criteria for developing theme based atlases,
5. list of complementary methodological studies,
6. list of products from network partners

Agenda

Thursday, 26. April

<i>when</i>	<i>what</i>	<i>who</i>
09:00-09:30	Introduction: the road since Norway FIVIMS Workshop goals and outputs	Otto Simonett, GRID-Arendal Barbara Huddleston <i>OS or anyone else from PMG</i>
09:30-12:30	Presentations from participants: progress since the 1998 Arendal poverty mapping workshop and a coffee break, of course! work in progress, list of products Brennan Van Dyke, UNEP	Short (10-min) (voluntary) presentations by participants followed by 10 min question - answer sessions
12:30-14:00	Lunch	
14:00-14:20	Main traits of the Issues Paper	Benjamin Davis, FAO
14:20-15:30	What are the key issues in poverty mapping	
15:30-16:30	What Research Questions can Country Case studies address? ... and a coffee break, of course!	Introduction by Ben Davis
16:30-17:45	What are the criteria for proposed country case studies , alternatives: what complements the existing pool of poverty mapping studies best? - with regards to methods - with regards to regions - with regards to thematic approaches - with regards to data requirements	Chair/Facilitator: CIAT
19:00	Dinner for all; The Oval Room, 800 Connecticut ave. NW	

Friday, 27. April

<i>when</i>	<i>what</i>	<i>who</i>
09:00-10:15	List of complementary methodological studies?	Simon Cook, CIAT
10:15-10:45	Coffee Break	

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10:45-12:45	What are the criteria for developing global datasets?	Facilitation: Ergin Ataman, FAO
12:45-14:00	Lunch	
14:00-15:00	What are the criteria for developing theme based atlases?	Otto Simonett, UNEP
15:00-16:00	Summary in plenum	pmg

Expert meeting April 26-27, 2001**List of Participants****Partners****World Bank:**

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Poverty and food insecurity mapping project

Extended project managers group

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